DVD-HR770

DVD
user manual

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WARNING

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK).

NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.	**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	This symbol indicates important instructions accompanying the product.

Do not install this equipment in a confined space such as a bookcase or similar unit.

WARNING : To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

CAUTION : HDD & DVD RECORDER USES AN INVISIBLE LASER BEAM WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE HDD & DVD RECORDER CORRECTLY AS INSTRUCTED.

CAUTION

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

This product satisfies CE regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

IMPORTANT NOTE

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug. If it requires replacing, a fuse approved to BS1362 of the same rating must be used.

Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug. Replacement covers are available from your dealer.

If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.

However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do not connect the plug to a mains jack, as there is a risk of shock hazard from the bared flexible cord.

To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

The product unit accompanying this user manual is licenced under certain intellectual property rights of certain third parties. This licence is limited to private non-commercial use by end-user consumers for licenced contents.

No rights are granted for commercial use.

The licence does not cover any product unit other than this product unit and the licence does not extend to any unlicenced product unit or process conforming to ISO/IEC 11172-3 or ISO/IEC 13818-3 used or sold in combination with this product unit. The licence only covers the use of this product unit to encode and/or decode audio files conforming to the ISO/IEC 11172-3 or ISO/IEC 13818-3. No rights are granted under this licence for product features or functions that do not conform to the ISO/IEC 11172-3 or ISO/IEC 13818-3.

PRECAUTION

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding- type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Handling Cautions

- Before connecting other components to this HDD & DVD RECORDER, be sure to turn them all off.
- Do not move the HDD & DVD RECORDER while a disc is being played, or the disc may be scratched or broken, the HDD & DVD RECORDER internal parts may be damaged.
- Do not put a flower vase filled with water or any small metal objects on the HDD & DVD RECORDER.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Exterior interference such as lightning and static electricity can affect normal operation of this HDD & DVD RECORDER. If this occurs, turn the HDD & DVD RECORDER off and on again with the **STANDBY/ON** button, or disconnect and then reconnect the AC power cord to the AC power outlet. The HDD & DVD RECORDER will operate normally.
- Be sure to remove the disc and turn off the HDD & DVD RECORDER after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the HDD & DVD RECORDER for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.
- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The Mains plug is used as a disconnect device and shall stay readily operable at any time.

Maintenance of Cabinet

For safety reasons, be sure to disconnect the AC power cord from the AC outlet.

- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

HDD (Hard Disk Drive)

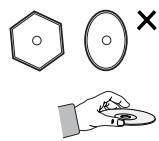
The hard disk has a high storage density, which enables long recording durations and quick access to written data. However, it can easily be damaged by shock, vibration or dust and should be kept away from magnets. To avoid losing important data, observe the following precautions.

- Do not use the HDD & DVD RECORDER in a place subject to extreme changes in temperature.
- Do not apply a strong shock to the HDD & DVD RECORDER.
- Do not place the HDD & DVD RECORDER in a location subject to mechanical vibrations or in an unstable location.
- Do not place the HDD & DVD RECORDER on top of a heat source.
- Do not disconnect the AC power cord while the power is on.
- Do not attempt to change the hard disk. This may result in a malfunction.

Should the hard disk be damaged, you cannot recover lost data. The hard disk is only a temporary storage space.

Disc Handling

- Use discs with regular shapes. If an irregular disc (a disc with a special shape) is used, this HDD & DVD RECORDER may be damaged.



Holding discs

- Avoid touching the surface of a disc where recording is performed.

DVD-RAM, DVD-RW and DVD-R

- Clean with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1 where available). Do not use cleaners or cloths for CDs to clean DVD-RAM/-RW/-R discs.

DVD-Video, Audio-CD

- Wipe off dirt or contamination on the disc with a soft cloth.

Cautions on handling discs

- Do not write on the printed side with a ball-point pen or pencil.
- Do not use record cleaning sprays or antistatic. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.

- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.

- If you move your HDD & DVD RECORDER suddenly from a cold place to a warm place, condensation may generate on the operating parts and lens and cause abnormal disc playback. If this occurs, do not connect the plug to the power outlet and wait for two hours. Then insert the disc and try to play back again.

Disc Specifications

This unit allows you to record and playback high quality digital video on DVD-RAM/-RW/-R discs or on the HDD.
You can also edit digital images on DVD-RAM/-RW discs or HDD.

Disc Type

❖ DVD-Video

- A digital versatile disc (DVD) can contain up to 135-minutes of images, 8 audio languages and 32 subtitle languages. It is equipped with MPEG-2 picture compression and Dolby digital surrounding, allowing you to enjoy vivid and clear theatre quality images in the comfort of your own home.
- When switching from the first layer to the second layer of a dual-layered DVD Video disc, there may be momentary distortion in the image and sound. This is not a malfunction of the unit.
- Once a DVD-RW/-R recorded in Video Mode is finalised, it becomes DVD-Video.

❖ Audio CD

- An audio disc on which 44.1 kHz PCM Audio is recorded.
- Plays CD-DA format audio CD-R and CD-RW discs.
- The unit may not be able to play some CD-R or CD-RW discs due to the condition of the recording.

❖ CD-R/-RW

- Use a 700MB (80 minutes) CD-R/-RW disc. If possible, do not use a 800MB (90 minutes) or above disc, as the disc may not play back.
- If the CD-R/-RW disc was not recorded as a closed session, you may experience a delay in the early playback time, all recorded files may not play.
- Some CD-R/-RW discs may not be playable with this unit, depending on the device which was used to burn them. For contents recorded on CD-R/-RW media from CDs for your personal use, playability may vary depending on contents and discs.

❖ DVD-R Disc Playback and Recording

- Once a DVD-R recorded in Video Mode is finalised, it becomes DVD-Video.
- You can record onto the available space on the disc and perform editing functions such as giving titles to discs and programmes and erasing programmes before finalising.
- When programming is erased from a DVD-R, that space does not become available. Once an area on a DVD-R is recorded on, that area is no longer available for recording, whether the recording is erased or not.
- It takes about 30 seconds for the unit to complete recording management information after recording finishes.
- This product optimizes the DVD-R for each recording. Optimizing is carried out when you start recording after inserting the disc or turning on the unit. Recording onto the disc may become impossible if optimizing is carried out too many times.
- Playback may be impossible in some cases due to the condition of recording.
- This unit can play back DVD-R discs recorded and finalised with a Samsung DVD video recorder. It may not be able to play some DVD-R discs depending on the disc and the condition of the recording.

❖ DVD-RW Disc Playback and Recording

- Recording and playback can be performed on DVD-RW discs in both the Video and VR Modes.
- Once a DVD-RW recorded in both the Video and VR Modes is finalised, you cannot perform additional recording.
- Once a DVD-RW recorded in Video Mode is finalised, it becomes DVD-Video.
- In both modes, playback can be performed before and after finalisation, but additional recording, deleting and editing can not be performed after finalisation.

- If you want to record the disc in VR Mode and then record in V Mode, be sure to execute Format. Be careful when executing Format because all the recorded data may be lost.
- A DVD-RW blank disc is initialized to VR Mode when first initialized.

❖ DVD-RAM Disc Playback and Recording

- Ensure that the recording mode is set to VR mode. Otherwise, this product will not be able to play the recording.
- You cannot play a DVD-RAM in most DVD components due to compatibility issues.
- Only DVD-RAM standard Version 2.0. discs can be played in this unit.
- DVD-RAM recorded on this unit may not work with other DVD components. To determine compatibility with these DVD-RAM discs, refer to the user's manual for the player.
- For cartridge type DVD-RAM discs, remove the cartridge and use the disc only.

Disc Copy

Contents Copy Specifications

Contents	HDD → DVD	DVD → HDD
Recorded Video Title	Supported	Supported
Copy Protected Title	Not supported	Not supported
Copy Once Title	Move (Deletes the Title in the HDD after copying)	Not supported

Once "Copy Once programme" has been recorded on the DVD disc, this title cannot be copied to HDD anymore.

But "Copy Once programme" has been recorded on the HDD, this title can be copied to DVD-RW (VR mode) or DVD-RAM.

Contents Copy Specifications

Contents	HDD ➔ DVD	DVD ➔ HDD
MP3	Supported	Supported
JPEG(photo)	Supported	Supported
DivX	Supported	Supported
CD-DA	Not supported	Supported

- Disc(CD-R/CD-DA/CD-RW/DVD-RAM, DVD-R(Finalise)/DVD-RW(Finalise)) ➔ HDD
- HDD ➔ DVD-R, DVD-RW(V)
- If the disc is finalised through Disc Manager, it can be compatible with PC as a disc with a UDF file system.

COPY PROTECTION

- Many DVD discs are encoded with copy protection. Because of this, you should only connect your HDD & DVD RECORDER directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.
- This product incorporates copyright protection technology that is protected by methods claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorised by Macrovision Corporation, is intended for home and other limited viewing uses only unless otherwise authorised by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Protection

This HDD & DVD RECORDER can allow you to protect the contents of your discs, as described below.

- Programme-protected: See page 74 “Locking (Protecting) a Title”
- Disc-protected: See page 88 “Disc Protection”

❋ DVD-RAM/-RW/-R discs that are incompatible with the DVD-VIDEO format cannot be played with this product.

❋ For more information on DVD recording compatibility, consult your DVD-RAM/-RW/-R manufacturer.

❋ Use of poor quality DVD-RAM/-RW/-R discs may cause following unexpected problems including, without limitation, recording failure, loss of recorded or edited materials or damage to the HDD & DVD RECORDER.

Disc Format

❖ Using MP3 disc

- CD-R/-RW, DVD-RAM/±RW/±R, HDD with MP3 files recorded with UDF, ISO9660 or JOLIET format can be playbacked.
- Only MP3 files with the “.mp3” or “.MP3” extension can be played.
- For MP3 files recorded with a VBR(Variable Bit Rates), from 32 Kbps to 320 Kbps, the sound may cut in and out.
- Playable bit-rate range is from 56 Kbps to 320 Kbps.
- Each folder can have up to 500 items including files and sub folders.

❖ Using JPEG disc

- CD-R/-RW, DVD-RAM/±RW/±R, HDD recorded with UDF, ISO9660 or JOLIET format can be playbacked.
- Only JPEG files with the “.jpg” or “.JPG” extension can be displayed.
- Each folder can have up to 500 items including files and sub folders.
- MOTION JPEG and progressive JPEG are not supported.

❖ Using DivX disc

- CD-R/-RW, DVD-RAM/±RW/±R, HDD
- Video File with following extensions can be played. : .avi, .divx, .AVI, .DIVX
- DivX Video (Codec) Format : DivX 3.11 DivX 4.x
  DivX 5.x (without QPEL and GMC)
- DivX Audio (Codec) Format : MP3, MPEG1 Audio Layer 2, LPCM, AC3, DTS
- Supported subtitle file formats: .smi, .srt, .sub, .psb, .txt, .ass
- Each folder can have up to 500 items including files and sub folders.
- You cannot play back the disc that is larger than a 720 x 576 pixel resolution.

Do not use the following discs!

- LD, CD-G, CD-I, CD-ROM and DVD-ROM discs should not be used in this product.

  [Note]

  Disc types that can be played : CD/CD-R/-RW/MP3/JPEG/DVD-Video/DVD-RAM/±RW/±R.
  For a DVD-RW/±R disc, which has been recorded in Video Mode on another component, it can play only when finalised.
- Some commercial discs and DVD discs purchased outside your region may not be playable with this product. When these discs are played, either “No disc.” or “Please check the regional code of the disc.” will be displayed.
- If your DVD-RAM/-RW/-R discs is an illegal copy or is not in DVD video format, it may also not be playable.

❖ Disc compatibility

- Not all brands of discs will be compatible with this unit.

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GENERAL FEATURES

This unit allows you to record and playback high quality digital video on DVD-RAM/-RW/-R discs or on the HDD. You can also edit digital images on DVD-RAM/-RW discs or HDD.

HDD Recording

- DVD-HR770

  You can record up to Approx. 264 hours of video (in EP mode (8 Hours)) on the internal 160GB (gigabyte) hard disk (HDD).

With both recordable DVD and a high-capacity HDD in the same recorder, you have the flexibility to keep recordings on the HDD for quick access anytime, or record to DVD for archiving or playing on other DVD players.

Copy between HDD and DVD

You can copy recordings from the HDD to recordable DVD, or from DVD to the HDD.

You can only copy in the same record mode as the source title.

Simultaneous Recording and Playback

Playback and recording for both the DVD and the built-in hard disk drive (HDD) are completely independent. For example you can record a broadcast programme to either a recordable DVD or the HDD, while watching another recording you already made on the same DVD or on the HDD.

Automated Quality Adjustment for Timer Recording

If FR mode is selected, the video quality is adjusted automatically so that all video for the scheduled time can be recorded onto the free disc space. (See page 67)

High quality progressive scan

Progressive scanning provides high resolution and flicker free video. The 10-bit 54-MHz DAC and 2D Y/C Separating Circuitry provides the highest image playback and recording quality. (See page 36)

DivX Certification

DivX, DivX Certified, and associated logos are trademarks of DivX Networks, Inc and are used under licence.

- Official DivX® Certified product
- Plays all versions of DivX® video (including DivX® 6) with standard playback of DivX® media files

EZ Record Mode

This function allows you Initialise and Finalise a disc automatically. (See page 39)

BEFORE READING THE USER'S MANUAL

Make sure to check the following terms before reading the user manual.

Icons that will be used in manual

Icon	Term	Definition
HDD	HDD	This involves a function available on the HDD.
DVD-VIDEO	DVD	This involves a function available on DVD or DVD±R/-RW(V) discs that have been finalised.
DVD-RAM	RAM	This involves a function available on DVD-RAM.
DVD-RW	-RW	This involves a function available on DVD-RW.
DVD-R	-R	This involves a function available on DVD-R.
DVD+RW	+RW	This involves a function available on DVD+RW.
DVD+R	+R	This involves a function available on DVD+R.
Audio CD	CD-DA	This involves a function available on a data CD (CD-R or CD-RW).
JPEG	JPEG	This involves a function available on CD-R/-RW, DVD±R/±RW/-RAM discs or HDD.
MP3	MP3	This involves a function available on CD-R/-RW, DVD±R/±RW/-RAM discs or HDD.
DivX	DivX	This involves a function available on CD-R/-RW, DVD±R/±RW/-RAM discs or HDD.
	Caution	This involves a case where a function does not operate or settings may be cancelled.
	NOTE	This involves tips or instructions on the page that help each function operate.
	One-Touch button	A function that can be operated by using only one button.

About the use of this user's manual

1) Be sure to be familiar with Safety Instructions before using this product. (See pages 2~7)
2) If a problem occurs, check the Troubleshooting. (See pages 92~93)

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HOW TO USE THE HDD & DVD RECORDER

Step 1: Select the disc type or HDD

Please check available disc type before recording.

If you want to repeatedly record on the same disc or you want to edit the disc after recording, select a rewritable DVD-RW or DVD-RAM type disc. If you want to save a recording without any changes, choose a non-rewritable DVD-R. You can record files directly to the built-in HDD or edit a recorded file.

Step 2: Format the disc to start recording

Unlike a VCR, the HDD & DVD RECORDER automatically starts formatting when an unused disc is inserted. This is required for the preparation of recording on a disc.

Using the HDD

Formatting unnecessary.

Using a DVD-RAM

This type of disc can be formatted in DVD-Video Recording format (VR mode). You can edit recorded images and create a playlist in a specific sequence according to your requirements.

Using a DVD-RW

This type of disc can be formatted in either DVD-Video format (V mode) or DVD-Video Recording format (VR mode). For an unused disc, a message that asks whether to initialize a disc or not. If you select "DVD-VR" or "DVD-V", initialising will be started.
You can play a Video mode disc on various DVD components. A VR mode disc allows more varied editing.

Using a DVD-R

Formatting disc is unnecessary and only V Mode Recording is supported. You can play these types of discs on various DVD components only when they have been finalised.

Step 3 : Recording

There are two different recording methods, Direct Recording and Timer Recording. Timer recording is classified as follows:

Recording mode : XP (high quality mode), SP (standard quality mode), LP (long recording mode), and EP (extended mode) according to the recording mode. When recording is set in the FR mode, the best quality picture is recorded with regards to the remaining time on the disc.

Step 4 : Playing

You can select the title you want to play in a displayed menu and then immediately start playback.

A DVD consists of sections, called titles, and sub- sections, called chapters.

Step 5: Editing a recorded disc

Editing on discs is easier than conventional video tapes. The HDD & DVD RECORDER supports many different edit functions, possible only with DVDs and HDD.

With a simple and easy edit menu, you can operate various edit functions, such as delete, copy, rename, lock, etc., on a recorded title.

Creating a playlist (DVD-RAM/-RW in VR mode, HDD)

With this HDD & DVD RECORDER, you can create a new playlist on a disc and edit it without the original, pre-existing recording.

Step 6 : Finalising & Playing on other DVD components

To play your DVD on other DVD components, finalising may be necessary. First, finish all editing and recording operations, then finalise the disc.

When using a DVD-RW disc in VR Mode

DVD discs recorded in VR mode can only be played back in DVD recorders, not players.

When using a DVD-RW disc in Video Mode

The disc should be finalised first to enable playback on anything other than this HDD & DVD RECORDER. No more editing or recording can be made on the disc once it has been finalised.
To enable recording on the disc again, the disc must be unfinalised.

When using a DVD-R disc

You should finalise the disc to play it on a component other than this HDD & DVD RECORDER. You cannot edit or record on the disc once it has been finalised.

- You can finalise the disc automatically using EZ Record function. (See page 39)

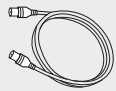
getting started

UNPACKING

Accessories

Check for the supplied accessories below.

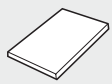
Video/Audio Cable



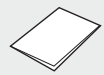
RF Cable for TV

Remote Control

Batteries for Remote Control (AAA Size)



Instruction Manual



Quick Guide

Preparing the Remote Control

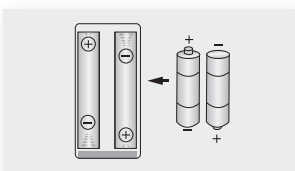
Install Batteries in the Remote Control

- Open the battery cover on the back of the remote control.
- Insert two AAA batteries. Make sure that the polarities (+ and –) are aligned correctly.
- Replace the battery cover.

If the remote does not operate properly:

- Check the polarity +/– of the batteries (Dry-Cell)
- Check if the batteries are drained.
- Check if remote sensor is blocked by obstacles.
- Check if there is any fluorescent lighting nearby.

Dispose of batteries according to local environmental regulations. Do not put them in the household trash.



To determine whether your television is compatible, follow the instructions below.

1. Switch your television on.
2. Point the remote control towards the television.
3. Press and hold the **TV STANDBY/ON** button and enter the two-figure code corresponding to the brand of your television, by pressing the appropriate number buttons.

Controllable TV Codes

BRAND	BUTTON
SAMSUNG	01, 02, 03, 04, 05, 06, 07, 08, 09
AIWA	82
ANAM	10, 11, 12, 13, 14, 15, 16, 17, 18
BANG & OLUFSEN	57
BLAUPUNKT	71
BRANDT	73
BRIONVEGA	57
CGE	52
CONTINENTAL EDISON	75
DAEWOO	19, 20, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
EMERSON	64
FERGUSON	73
FINLUX	06, 49, 57
FORMENTI	57
FUJITSU	84
GRADIENTE	70
GRUNDIG	49, 52, 71
HITACHI	60, 72, 73, 75
IMPERIAL	52
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BRAND	BUTTON
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WEGA	57
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Result: If your television is compatible with the remote control, it will switch off.
It is now programmed to operate with the remote control.

- If several codes are indicated for your television brand, try each one in turn until you find one that works.
- If you replace the remote control's batteries, you must set the brand code again.

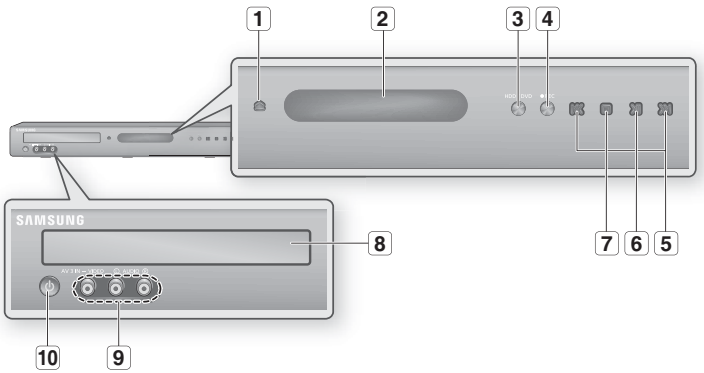
Then you can control the television using the following buttons after pressing the TV button.

Button	Function
TV STANDBY/ON	Used to switch the television on and off.
INPUT SEL.	Used to select an external source.
TV VOL (+ / –)	Used to adjust the volume of the television.
PROG (∧ / ∨)	Used to select the desired channel.
TV MUTE	Used to toggle the sound on and off.
Number	Used to input number directly.

- The functions listed above does not necessarily work on all televisions. If you encounter problems, operate the television directly.

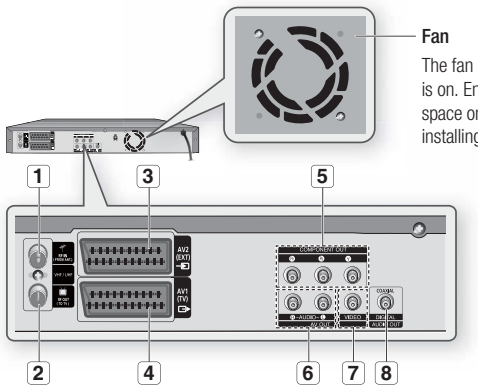
DESCRIPTION

Front Panel



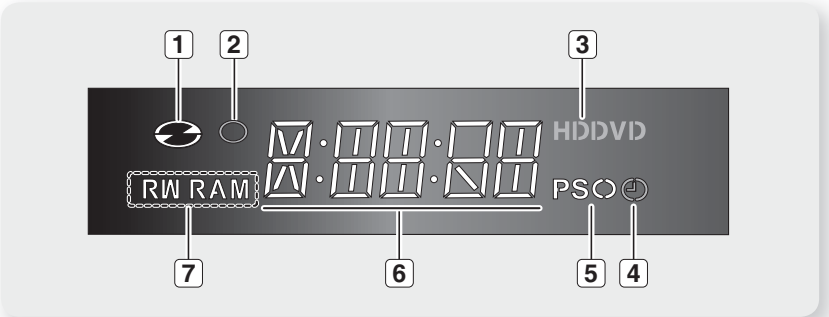
1	OPEN/CLOSE button	Opens and closes the disc tray.
2	DISPLAY	Displays the playing status, time, etc.
3	HDD/DVD button	Selects HDD/DVD mode.
4	REC button	Starts recording.
5	SEARCH/SKIP buttons	Goes to the next title/chapter/track or goes back to the previous title/chapter/track. (Playback mode) Select TV preset Channels. (Stop mode)
6	PLAY/PAUSE button	Plays a disc or pauses playback.
7	STOP button	Stops disc playback.
8	DISC TRAY	Opens to accept a disc.
9	AV 3 INPUT	Connects to external equipment.
10	STANDBY/ON button	Turns the HDD & DVD Recorder on and off .

Rear Panel



1	In from aerial connector	Connects RF cable from antenna.
2	Out to TV connector	Connects RF cable to TV antenna input.
3	AV2(EXT) INPUT SCART connector	Connects to equipment having SCART output jack.
4	AV1(TV) OUTPUT SCART connector	Connects to equipment having SCART input jack.
5	COMPONENT VIDEO OUT	Connects to equipment having Component video input.
6	AUDIO OUT	Connects to the audio input of external equipment using audio cables.
7	VIDEO OUT	Connects the input of external equipment using a Video cable.
8	DIGITAL AUDIO OUT(COAXIAL)	Connects to an amplifier having a digital coaxial audio input jack.

Front Panel Display

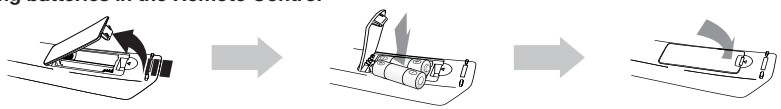


1	In Disc Indicator	Lights status icon.
2	REC Indicator	Lights in the record mode.
3	DVD VIEW Indicator	Lights when DVD mode is selected.
4	TIMER Indicator	Lights to indicate the timer record mode.
5	PS ○ Indicator	Lights in the progressive scan mode.
6	STATUS Indicator	Playing time/clock/current status indicator.
7	Disc Media Indicator	Lights when a DVD-RAM/-RW/-R disc is loaded.

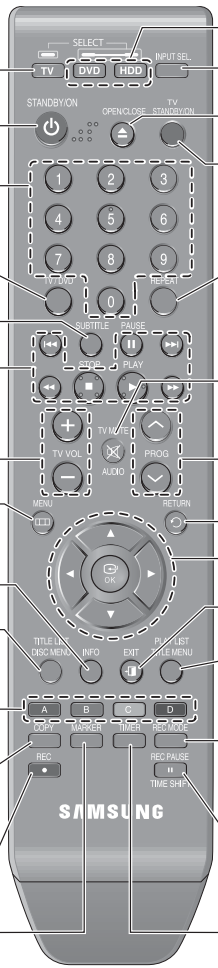
TOUR OF THE REMOTE CONTROL

Your HDD & DVD RECORDER remote control will work with Samsung televisions and compatible brands.

Installing batteries in the Remote Control



1. **Lift the cover at the back of the remote control upward as shown.**
2. **Install two AAA size batteries.** Make sure to match the "+" and "–" ends of the batteries with the diagram inside the compartment.
3. **Replace the cover.** Assuming typical TV usage, the batteries last for about one year.



SELECT
(DVD, HDD)

TV button
Press this to operate TV.

INPUT SEL. button
Select input signal in external input mode (PROG, AV1, AV2, or AV3 input)

STANDBY/ON button
Press to turn the HDD & DVD RECORDER On/Off.

OPEN/CLOSE button
To open and close the disc tray.

TV STANDBY/ON button
Press to turn the TV On/Off.

NUMBER buttons
Used to input number directly.

TV/DVD button
Press TV/DVD button to select the Video input on your TV.

REPEAT button
Allows you to repeat a title, chapter, track or disc.

SUBTITLE button
Press this to switch the DVD's subtitle language.

Playback-related Buttons
Forward/Rewind, Search, Skip, Stop, Play/Still.

TV MUTE/AUDIO button
In TV mode, this operates as sound mute.
Use this to access various audio functions on a disc. (DVD mode)

TV VOL button
TV volume adjustment.

PROG button
Use this to select a TV programme.

MENU button
Brings up the HDD & DVD RECORDER's setup menu.

RETURN button
Press to return to the previous menu.

OK/DIRECTION buttons (▲▼◄► buttons)
Used to select or move up/down, left/ right when setting the menu function.

INFO button
This will display current setting or disc status.

EXIT button
Press to exit the setup screen.

TITLE LIST/DISC MENU button
Use this to enter the View Recording list/disc menu.

PLAY LIST/TITLE MENU button
Use this to return to the Title menu, or to view the recorded files list.

A, B, C, D button
Allows access to common function of HDD & DVD RECORDER.

REC MODE button
Use this to set the desired Recording time and picture quality. (XP/SP/LP/EP).

COPY button
Press this when you copy DVD to HDD and vice-versa.

REC button
Use to make a recording on HDD/DVD-RAM/-RW/-R discs.

REC PAUSE/TIME SHIFT button
Use this to pause during recording.
In HDD mode, use this to operate Time shift function.

MARKER button
Use this to bookmark a position while playing a disc.

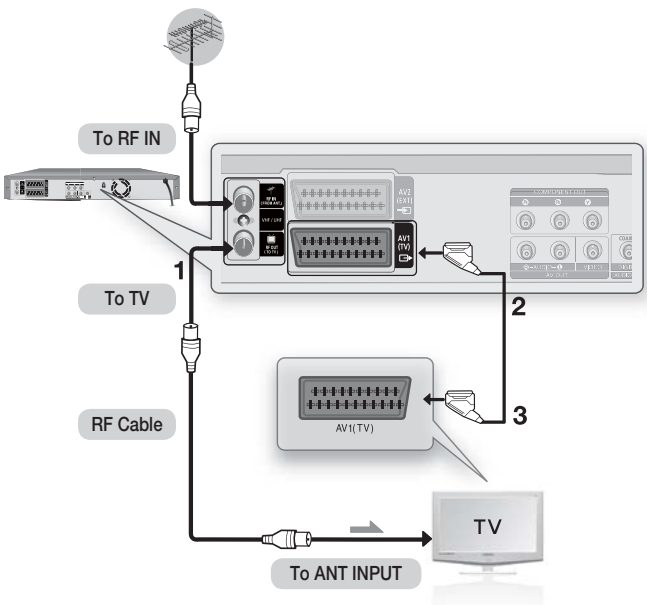
TIMER button
Press to directly enter the Timer Recording Mode menu.

CONNECTING THE HDD & DVD RECORDER

This section involves various methods of connecting the HDD & DVD RECORDER to other external components and required initial setting modes.

You can connect your HDD & DVD RECORDER to the television using the SCART cable if the appropriate input is available on the television.

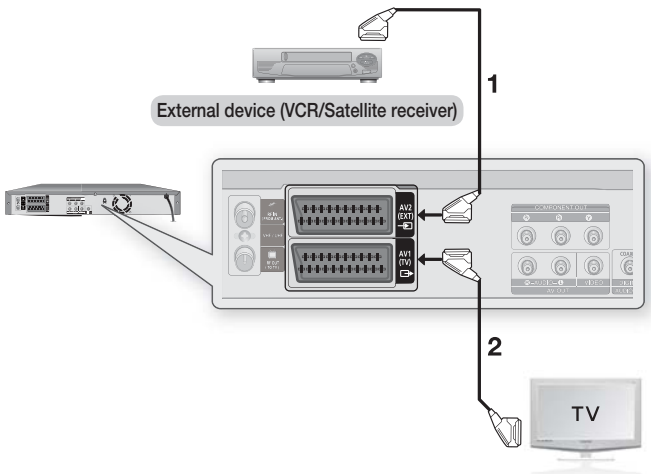
1. Connect the RF cable as shown.
2. Connect one end of the SCART cable to the AV1 socket on the rear of the HDD & DVD RECORDER.
3. Plug the other end into the appropriate connector on the television.
4. Plug in the HDD & DVD RECORDER and TV
5. Turn on the HDD & DVD RECORDER and TV.
6. Press the **INPUT SEL.** button on your TV remote control until the Video signal from the HDD & DVD RECORDER appears on the TV screen.



- The RF cable connection of this product sends only signals of TV. You must connect SCART cable or Audio/Video cables to watch a DVD from your HDD & DVD RECORDER.
- TV mode : Press the **TV/DVD** button on the remote control, then "TV" will appear on the Front display (or turn off HDD & DVD RECORDER).
  Then you can watch programmes received through TV.

ADDITIONAL CONNECTIONS

You can connect your HDD & DVD RECORDER to a satellite or digital tuner.



- DVD mode

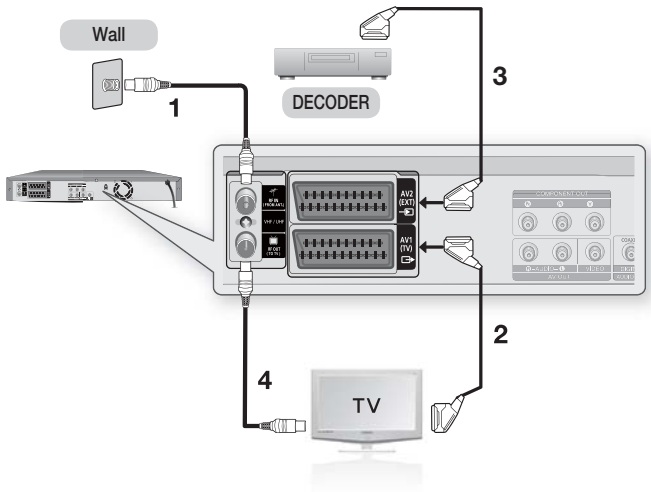
1. Connect the AV2 connector of HDD & DVD RECORDER and VCR/Satellite receiver or digital tuner using a SCART cable.
2. Connect the AV1 connector to the SCART AV connector on TV.
3. Turn on the HDD & DVD RECORDER, VCR/Satellite receiver or digital tuner and TV.
4. Set Input mode on AV2.

- TV mode

1. Press the TV/DVD button on the remote control, then “TV” will appear on Front display. (or turn off HDD & DVD RECORDER.)
2. You can watch programmes from a satellite or digital tuner connected to this HDD & DVD RECORDER, even when the HDD & DVD RECORDER is turned off.

ANTENNA + HDD & DVD RECORDER + EXTERNAL DECODER BOX + TV

If you connect external decoder box to HDD & DVD RECORDER, you can record scrambled channels (CANAL+ or Premiere broadcasts) received through the built-in TV tuner in HDD & DVD RECORDER.



1. Connect RF antenna cables as shown.
2. Connect the AV1 connector on this recorder to the SCART AV connector on TV using a SCART cable.
3. Connect the AV2 connector to a SCART AV connector on decoder box.
4. To watch or record PAY-TV Canal Plus programmes, set your HDD & DVD RECORDER to receive the channels using the on-screen display. (Refer to pages 36~37)

OTHER TYPE OF CONNECTING THE VIDEO OUTPUT CABLE

There are several ways to output a video signal not using scart cables. Select one of the following video connections that best suits.

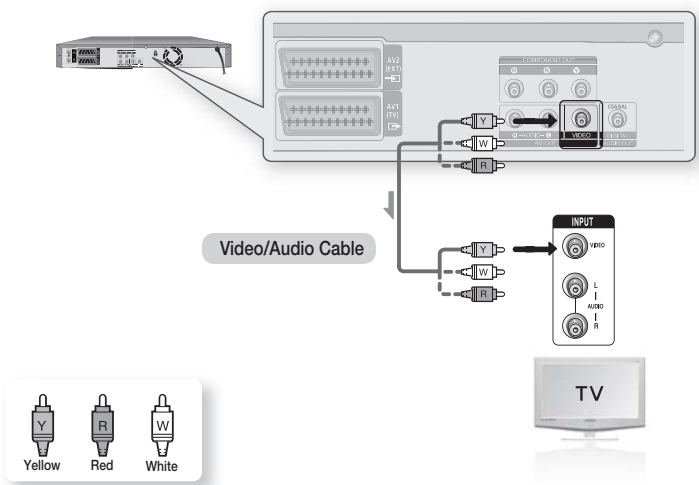
- **Case 1** : Connecting to a Video (Composite) output jack
- **Case 2** : Component Video output jacks

Component video and Progressive Output Modes

- Component video output is available only if your TV supports Component video input, respectively. If Component video output does not work, check the TV connections and the TV input selection settings.
- Compared to standard interlaced video, progressive scan doubles the amount of video lines fed to your TV, resulting in a more stable, flicker-free, clear image than interlaced video. This is only available with TVs that support progressive scan.
- Progressive Scan Output (576P)
  Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture, in case of 576 progressive scan picture problems, It is recommended that the user switch the connection to the 'standard definition' output. If there are questions regarding our TV set compatibility with this model 576P HDD & DVD RECORDER, please contact our customer service centre.

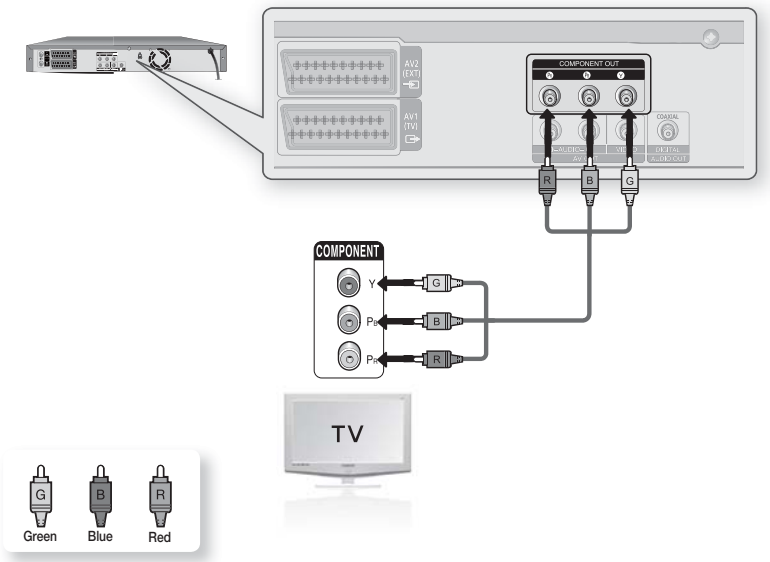
Case 1 : Connecting to a Video (Composite) output jack

1. Connect a video (Yellow) cable between the VIDEO (yellow) OUT jack on HDD & DVD RECORDER and VIDEO (yellow) INPUT jack on your TV (or AV amplifier).
   - You will enjoy regular quality images.
2. Connect audio cables (white and red) between the AUDIO OUT jacks on the HDD & DVD RECORDER and AUDIO IN jacks on TV (or AV amplifier). (See pages 25~26)



Case 2 : Component Video output jacks

1. Connect Component video cables(not supplied) between the COMPONENT OUT(Y, P_B, P_R) jacks on HDD & DVD RECORDER and COMPONENT IN(Y, P_B, P_R) jacks on your TV.
   • You will enjoy high quality and accurate colour reproduction images.
2. Connect audio cables (white and red) between the AUDIO OUT jacks on the HDD & DVD RECORDER and AUDIO IN jacks on TV (or AV amplifier).
   (See pages 25~26).
3. After connecting, refer to the page 36.



- Make sure that the colour coded connections match. The Y, P_B, P_R component output jacks of your HDD & DVD RECORDER must be connected to the exact corresponding component input jacks on your TV.
- Progressive setting is only available when the Video Out is set to Component.
  (See page 36)

OTHER TYPE OF CONNECTING THE AUDIO OUTPUT CABLE

There are several ways to output audio signal not using scart cables. Select the audio connection that best suits you below.

- **Case 1** : Connecting to your TV
- **Case 2** : Connecting to a stereo amplifier with AV output jacks
- **Case 3** : Connecting to an AV amplifier with a digital output jack

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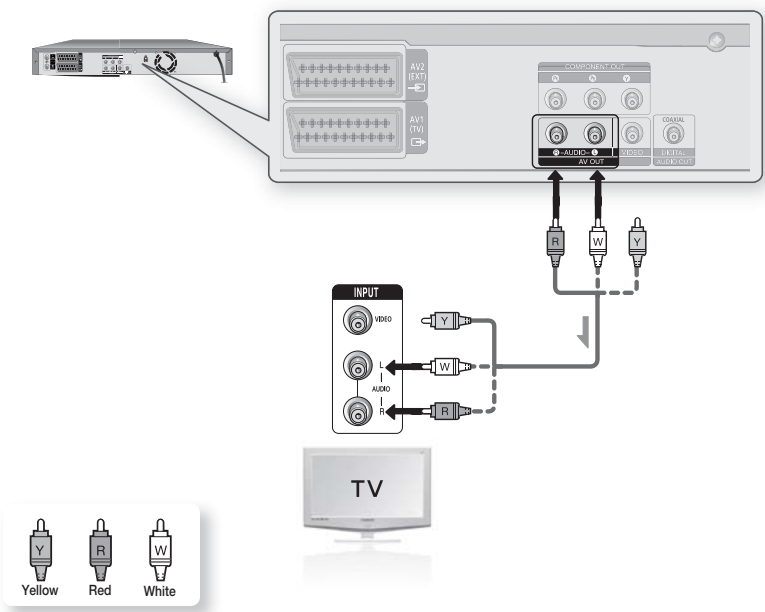
Manufactured under licence from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

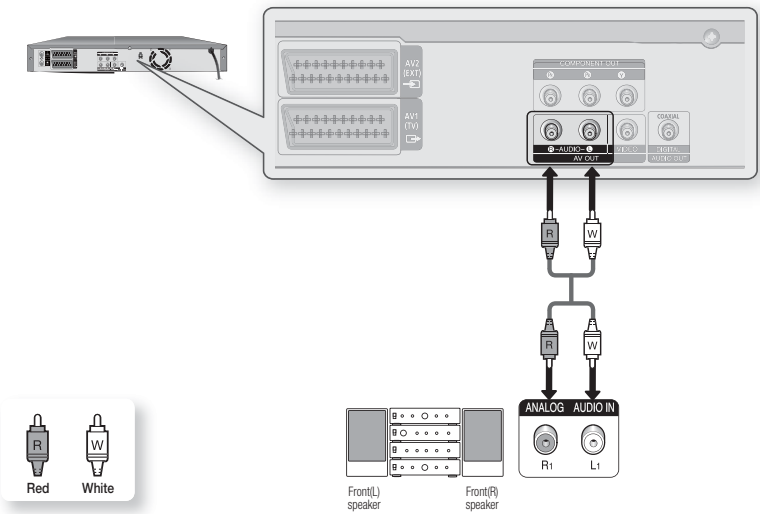
Case 1 : Connecting to your TV

If your TV has audio input jacks, use this connection.



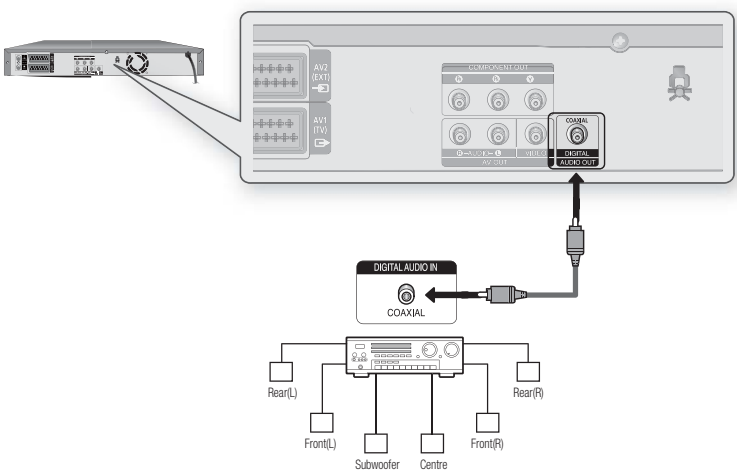
Case 2 : Connecting to a stereo amplifier with AV output jacks

If your stereo amplifier only has AUDIO INPUT jacks (L and R), use the AUDIO OUT jacks



Case 3: Connecting to an AV amplifier with a digital output jack

If your AV amplifier has a Dolby Digital, MPEG2 or DTS decoder and a digital input jack, use this connection. To enjoy Dolby Digital, MPEG2 or DTS sound, you will need to set up the audio settings. According to your amplifier, connect to a coaxial cable. (See pages 34~35)



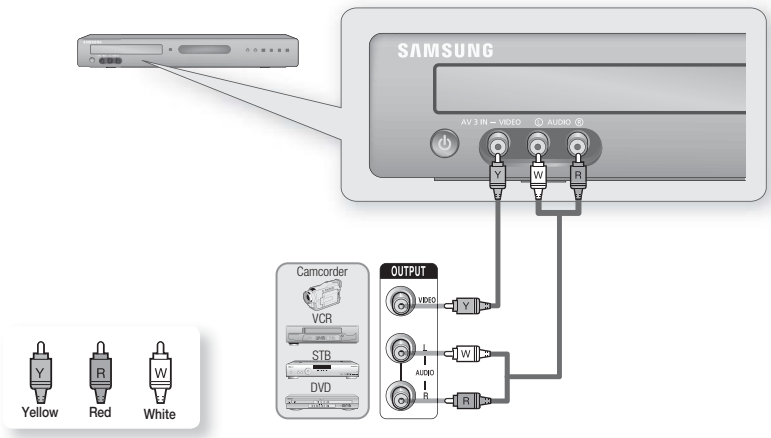
CONNECTING TO AV 3 IN JACKS

This allows you to connect your HDD & DVD RECORDER to other external devices and view or record their outputs.

- Connecting a VCR, Set-Top Box(STB), DVD player or Camcorder to the AV 3 IN jacks

Connecting a VCR, Set-Top Box(STB), DVD player or Camcorder to the AV 3 IN jacks

Connecting a VCR or external device to AV 3 IN jacks of the HDD & DVD RECORDER. You can record from connected equipment (VCR, STB, DVD player or Camcorder).



- AV 3 in selection will be automatically done.
  If the input is not selected automatically, use **INPUT SEL.** button to select proper input.
- Copy protected content cannot be recorded.

system setup

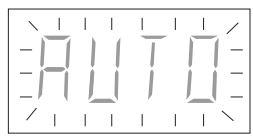
ON-SCREEN MENU NAVIGATION

The on-screen menus allow you to enable or disable various functions on your HDD & DVD RECORDER.
Press the **MENU** button to open the on-screen menu and then use the following buttons to navigate through the on screen menus.

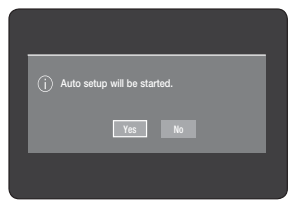
1. ▲▼, ◄► buttons
   Press these buttons on the remote control to move the selection bar ▲▼, ◄► to cycle through the menu options.
2. **OK** button
   Press this button on the remote control to confirm any new settings.
3. **RETURN** button
   Press this button on the remote control to return to the Previous menu screen displayed or to exit the on-screen menu.
4. **EXIT** button
   Press this button to exit the on-screen **MENU**.

PLUG & PLAY SETUP

Your HDD & DVD RECORDER will automatically set itself up when it is plugged in for the first time. TV stations and clock will be stored in memory. The process takes a few minutes. Your HDD & DVD RECORDER will then be ready for use.

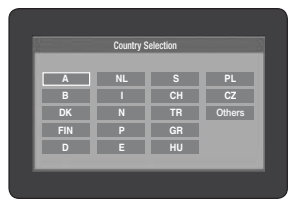


1. Connect the RF cable as indicated on page 20.
   (Connecting Your HDD & DVD RECORDER to the TV Using the RF Cable and scart cable.)
2. Plug the HDD & DVD RECORDER into the mains. “AUTO” in the front panel display flickers.
3. Press a number button to select the language.
4. Press the **OK** button to start the auto setup.
5. Select “Country” using the ▲▼, ◄► buttons to select your country.
   - Refer to following abbreviation table when selecting “Country”.

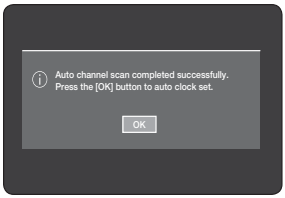


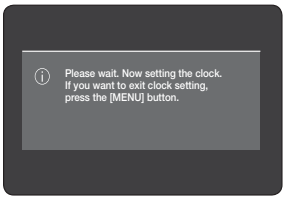
A(Austria)	NL(Netherlands)	S(Sweden)	PL(Poland)
B(Belgium)	I(Italy)	CH(Swiss)	CZ (Czech)
DK(Denmark)	N(Norway)	TR(Turkey)	Others
FIN(Finland)	P(Portugal)	GR(Greece)	
D(Deutschland)	E(Spain)	HU(Hungary)	

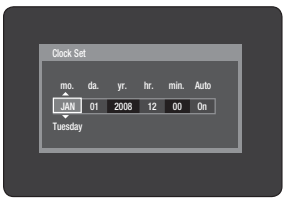
   - The HDD & DVD RECORDER searches for the stations according to a preset preference list corresponding to the country that you have selected.



6. Auto channel scan will be started.
   - The number of stations automatically stored by the HDD & DVD RECORDER depends on the number of stations that it has found.
7. After auto channel scan is completed, auto clock setting will be started automatically in 10 seconds. If you want to start auto clock setting immediately, press **OK** button.
8. Wait until current date and time are displayed automatically. If you want to exit auto clock setting, press **MENU** button.







- Now, your HDD & DVD RECORDER is ready for use. “Plug & Play Setup” is complete. If you want to change it, you can by Presetting the Stations manually “Channel Set – Manual Setup” menu. (See page 31)
- Auto setup function can be performed by pressing **STOP** (⊙) on the unit continuously for 10 seconds or more during power off with no disc inserted.

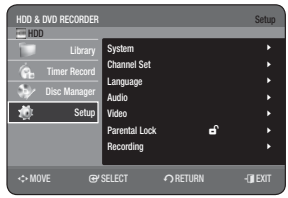
9. Check the date and time.
   - If it is Correct, press **OK** button then the date and time will be saved. If you don’t press the **OK** button, the date and time will be saved automatically after 5 seconds.
   - If it is Incorrect, input correct **Month**, **Day**, **Year**, **Hour** or **Minute** using ▲▼, ◄► buttons or number buttons. Press **OK** button then the date and time will be saved. When you need to change clock setting, you can set it up manually.

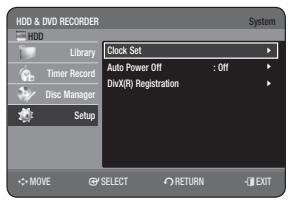
system setup

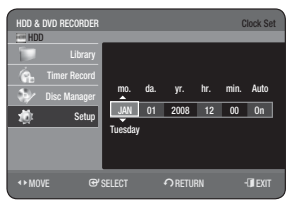
SETTING THE CLOCK

This menu is used to set the current time.
You need to set the time to use timer recording.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select **Clock Set**, then press the **OK** or ► button.
   Press the ▲▼◄► buttons to input Month, Day, Year, Hour or Minute. Press the number buttons to input clock data directly. The day of the week is displayed automatically.
5. Press the **OK** button, then the date and time will be saved. If you don't press the **OK** button, it will not be saved.







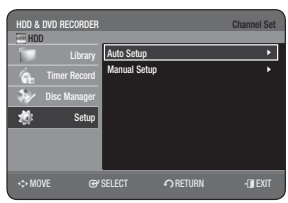
- You must have the RF cable connected to set the Auto Clock. (See page 20)
- The HDD & DVD RECORDER automatically sets the clock according to the time signal broadcast between the channels PR1 to PR5. If you do not need the Auto Clock Set function, select Off.

CHANNEL SET

Auto Setup

This feature allows you to manually set the HDD & DVD RECORDER tuner band to Antenna or Cable, whichever you connected to the Antenna In jack during initial setup.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Channel Set**, then press the **OK** or ► button.



4. Press the ▲▼ buttons to select **Auto Setup**, then press the **OK** or ► button.
   The message "Your data will be lost. Press [OK] to continue, [RETURN] to exit." is displayed.
5. Press the **OK** button, then press the ▲▼◄► buttons to select your Country.
   - The HDD & DVD RECORDER searches for the stations according to a preset preference list corresponding to the country that you have selected. (See page 28)
6. Press the **OK** button. Channel scan will be started.
   - The first frequency band is scanned and the first station found is displayed and stored. And the HDD & DVD RECORDER searches for the second station and so on.
   - The number of stations automatically stored by the HDD & DVD RECORDER depends on the number of stations that it has found.

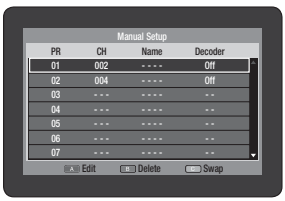
■ Press the **OK** button to stop the Auto Setup

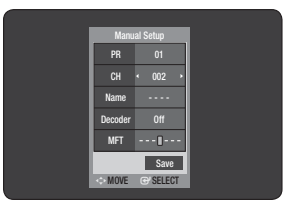
Manual Setup

You can add preset channel that Auto Channel Search missed. And you can delete a channel you wish to remove. You can programme the order of channels.

To setup, follow steps 1 to 3 in "Auto Setup" on page 30.

4. Press the ▲▼ buttons to select **Manual Setup**, then press the **OK** or ► button.
5. Press the ▲▼ buttons to select a **PR** (programme) you wish to edit, delete, or swap, then press the **COLOUR** button.
   Select **Edit**, **Delete** or **Swap**.
   - **In case of Edit (RED(A) button)** : You can add or edit PR (programme) information. After change PR informations (**CH.**, **Name**, **Decoder**, **MFT**), select **Save**, then press the **OK** button.
     - **CH** : Tune the channel using ◄► buttons.
     - **Name** : Display station name automatically detected in broadcasting signal. If not detected, you can edit name by using ▲▼◄► buttons.
     - **Decoder** : If you set on, you can record scrambled channels using external decoder box. Before setting on, refer to connecting external decoder box in the page 22.
     - **MFT (Manual Frequency Tunning)** : You can tune up the channel frequency better using ◄► buttons.



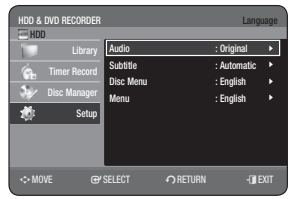


   - **In case of Delete (GREEN(B) button)** : the channel information of selected PR(programme) will be removed.
   - **In case of Swap (YELLOW(C) button)** : You can swap the channel information of two PR(programme). For example, if you wish to swap PR2 and PR5, select swap at PR2, then press the **OK** button at PR5.

system setup

SETTING UP THE LANGUAGE OPTIONS

If you set the language options, in advance, they will come up automatically every time you watch a movie.

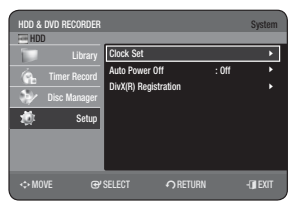


1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Language**, then press the **OK** or ► button.
   Language setup menu will be displayed.
4. Press the ▲▼ buttons to select the desired language option, press the **OK** or ► button.
   - **Audio** : For the disc audio language.
   - **Subtitle** : For the disc subtitles.
   - **Disc Menu** : For the disc menu contained on the disc
   - **Menu** : For the on-screen menu of your HDD & DVD RECORDER.
5. Press the ▲▼ buttons to select the desired language, then press the **OK** or ► button.

- If the selected language is not recorded on the disc, the original pre-recorded language is selected.
- The selected language will only appear if it is supported on the disc.

SETTING UP THE SYSTEM OPTIONS

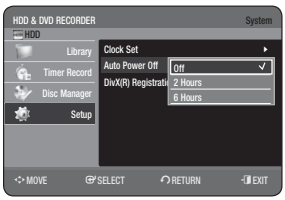
This function allows you to setup the system setting.



1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select the desired system option, then press the **OK** or ► button.
5. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.

Auto Power Off Setting

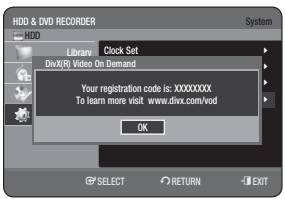
This feature automatically turns off your HDD & DVD RECORDER, if you do not press any button for the selected time.



1. Press the ▲▼ buttons to select **Auto Power Off**, then press the **OK** or ► button.
2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.
   - **Off** : Auto power off is disabled.
   - **2 Hours** : HDD & DVD RECORDER will automatically turn off for 2 hours after the last button is pressed.
   - **6 Hours** : HDD & DVD RECORDER will automatically turn off for 6 hours after the last button is pressed.
   - If the turn off time set with the Auto Power off function is reached during playback or recording, the device will operate until the playback or recording is finished.

DivX(R) Registration

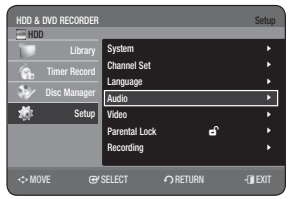
Please use the Registration code to register this HDD & DVD RECORDER with the DivX(R) Video On Demand format. For more information, visit **www.divx.com/vod**



SETTING UP THE AUDIO OPTIONS

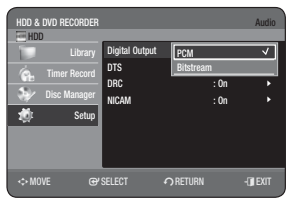
You can connect the HDD & DVD RECORDER to an external amp or Home theatre.
Allows you to setup the Audio device and sound status depending on the audio system in use.
You can also set NICAM mode.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Audio**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select the desired audio option, then press the **OK** or ► button.
5. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.



Digital Output

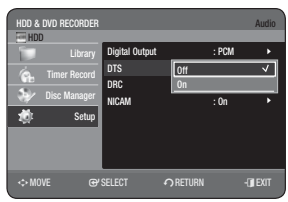
- **PCM** : Select this when your equipment does not decode Dolby Digital (or MPEG-2) compatible.
- **Bitstream** : Outputs Dolby Digital (or MPEG-2) audio as bitstream. Select this when your AV receiver or AV amplifier has a Dolby Digital (or MPEG-2) Decoder.



- Digital output setting is equally applied to both Dolby Digital and MPEG-2 audio. LPCM sound track is always outputted as PCM. It has no relation with Digital Output setting.
- Be sure to select the correct Digital Output or you will hear no sound or a loud noise.

DTS

- **Off** : Doesn't output DTS signal. Select this when your AV receiver (or AV amplifier) does not have a DTS decoder.
- **On** : Outputs DTS Bitstream via digital output when you play DTS track. Select this only when your AV receiver (or AV amplifier) has a DTS decoder.

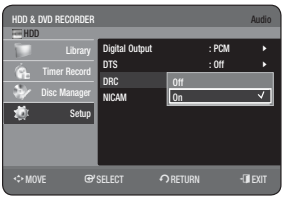


- When DTS soundtrack is played, sound does not output from AV Audio Output.

DRC

This is only active when a Dolby Digital signal is detected.

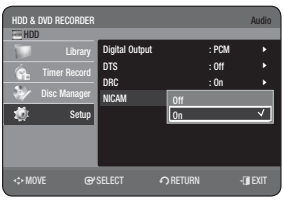
- **On** : When Movie soundtracks are played at low volume or from smaller speakers, the system can apply appropriate compression to make low-level content more intelligible and prevent dramatic passages from getting too loud.
- **Off** : You can enjoy the movie with the standard Dynamic Range.



NICAM

NICAM programmes are divided into 3 types. NICAM Stereo, NICAM Mono and Bilingual (transmission in another language). NICAM programmes are always accompanied by a standard mono sound broadcast and you can select the desired sound by setting NICAM on or off.

- **On** : NICAM mode
- **Off** : Only set at this position to record the standard mono sound during a NICAM broadcast if the stereo sound is distorted due to inferior reception conditions.

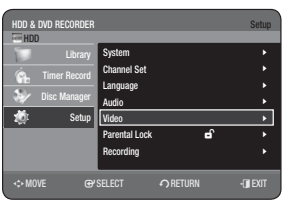


SETTING UP THE VIDEO OPTIONS

This function allows you to setup the video setting.

This function depends on disc type. It may not work for some disc types.

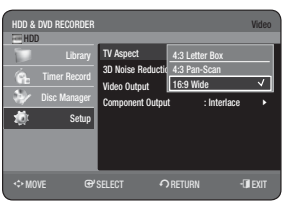
1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Video**, then press the **OK** or ► button. Video setup menu will be displayed.
4. Press the ▲▼ buttons to select the desired video option, then press the **OK** or ► button.
5. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.



TV Aspect

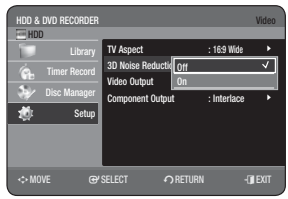
Depending on the type of television you have, you may want to adjust the screen setting. (aspect ratio)

- **4:3 Letter Box** : Select when you want to see the total 16:9 ratio screen DVD supplies, even though you have a TV with a 4:3 ratio screen. Black bars will appear at the top and bottom of the screen.
- **4:3 Pan-Scan** : Select this for conventional size TV when you want to see the central portion of the 16:9 screen. (Extreme left and right side of movie picture will be cut off.)
- **16:9 Wide** : You can view the full 16:9 picture on your wide screen TV.



3D Noise Reduction (motion adaptive noise reduction)

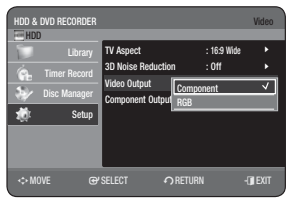
- **Off** : Normal
- **On** : Provides a clear picture through noise reduction (for recording).



Video Output

You can enjoy high quality image through RGB or Component video connections. RGB video output is available connecting scart jack(AV1) and component video output is available connecting component(Y, P_B, P_R) jack. Only one of these signals can be selected at one time.

- Component
- RGB



In Component mode, you can set video output to Progressive or Interlace.

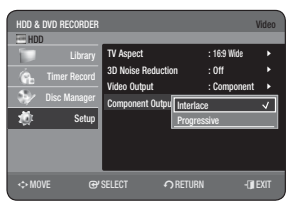
Available video output jacks are as follow.

Available Video Output Jack

Output jack \ Setting mode		Component mode	RGB Mode
Component Output (Y, P_B, P_R)		O	×
AV1 Scart	R, G, B	×	O
	Composite	O	×
Composite Video out		O	O

Component Output (Progressive Scan)

This function is available when video output is component. This setting enables you to select progressive mode. To view 'Progressive scan mode', first connect the component cable. (See page 24) Be sure the Component cables are connected properly.



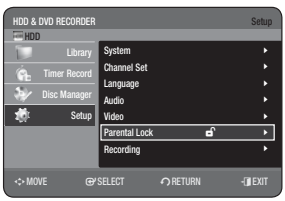
- **Progressive**
  The message "Do you want to maintain progressive mode? Reverting in 10 seconds." will be displayed. Select "Yes" to revert progressive mode.
- **Interlace**
  The message "Do you want to maintain interlace mode? Reverting in 10 seconds." will be displayed. Select "Yes" to revert interlace mode.

SETTING UP THE PARENTAL LOCK

DVD-VIDEO

The Parental Lock function works in conjunction with DVDs that have been assigned a rating which helps you control the types of DVDs that your family watches. There are up to 8 rating levels on a disc.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Parental Lock**, then press the **OK** or ► button.
   When you operate your HDD & DVD RECORDER for the first time, the “Create the Password” message will be displayed.
4. Enter the 4-digit password using the number buttons on the remote control.
   The “Confirm the password” message will be displayed. Enter your password again.

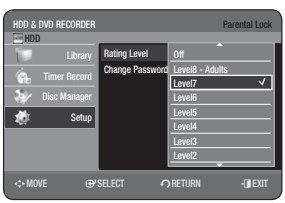


If you forgot your password

1. Remove the disc.
2. Press and hold the **PLAY/PAUSE** (►II) button on the front panel for 10 seconds or more.

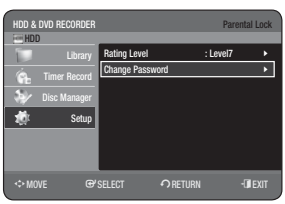
Setting the Rating Level

1. Press the ▲▼ buttons to select **Rating Level**, then press the **OK** or ► button.
2. Press the ▲▼ buttons to select the rating level you want, then press the **OK** or ► button.
   For example, if you select up to Level 6, discs that contain Level 7, 8 will not play. A larger number indicates that the programme is intended for adult use only.



Changing the Password

1. Press the ▲▼ buttons to select **Change Password**, then press the **OK** or ► button.
2. Enter the 4-digit password using the number buttons on the remote control. The “Confirm the password” message will be displayed.
3. Enter your password again using the number buttons on the remote control.



- After Rating Level has been set, you can change the password.

SETTING UP THE RECORDING OPTIONS

Automatic Chapter Creator

DVD-RW (V-mode) DVD-R

A DVD-Video consists of 'Titles' and 'Chapters'. When you record one programme, it makes one Title. If you use this function, the Title will be divided into Chapters.

1. Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.
2. Press the ▲▼ buttons to select **Recording**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Chapter Creator**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select **Off** or **On**, then press the **OK** or ► button.
   - **Off** : Select if you do not want use Automatic Chapter Creator.
   - **On** : Select this option to use the Automatic Chapter Creator feature.

   Press the **EXIT** (⏻) button exit the menu.
5. Press the **REC** button to start recording.
   (See page 63 about how to set recording speed)
   The message "Do you want to create the chapter menu after this recording?" is displayed.
6. Press the ◄► buttons to select **OK**, then press the **OK** button.
   - A new chapter is created according to the selected recording mode. A chapter will be about 5 minutes long in XP and SP, and about 15 minutes long in LP and EP mode.
7. Press the **STOP** (■) button to stop recording.
8. To display the created titles, finalise the disc (See page 90) and then press the **TITLE MENU** button.
   The title menu will be displayed.
9. To display the created chapters, select the desired Title and then press the **DISC MENU** button.
   The chapter menu for the selected Title will be displayed.

▪ The Automatic Chapter Creator function does not work during Timer Recording or when you turn the power off.

EP Mode Time Setting

You can select one of four recording modes by pressing the **REC MODE** button repeatedly.

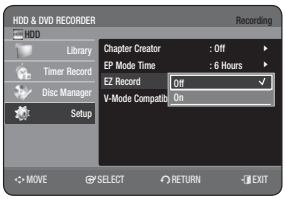
In EP(Extended Play) mode, you can set recording time to 6 or 8 hours with this setting.

- 6 Hours
- 8 Hours

EZ Record

DVD-RW (V-mode) DVD-R

This function allows you to Initialise and Finalise a disc automatically.



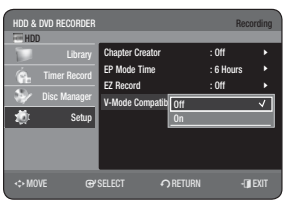
1. Press the ▲▼ buttons to select **EZ Record**, then press the **OK** or ► button.
2. Press the ▲▼ buttons to select **On**, then press the **OK** or ► button.
   Press the **EXIT** (⏻) button to exit the menu.
3. Insert a disc.
   If the disc is new, it will initialise automatically.
4. Press the **REC** button.
5. EZ Record function will automatically Finalise the disc under the following conditions.
   - When you press the **OPEN/CLOSE** button on your HDD & DVD RECORDER after recording on at least 70% of the disc. The tray will open after the disc has been finalised.
   - The above feature is available only when a DVD-RW(V) or DVD-R disc is inserted.

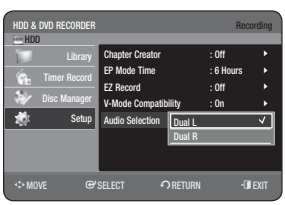
- If you insert a new DVD-RW disc, it will be formatted in V mode after auto initialising.
- If you select off, you must initialise (See page 60) and finalise the disc manually in the Disc Manager menu. (See page 90)
- The length of Recording is different according to recording mode. (See pages 40~41)

V-Mode Compatibility

This feature is about the setup for selecting audios when recording the NICAM STEREO (Multi-audio) broadcasting on HDD. It does not directly affect DVD recording of a programme.

- **Off** : Both “Dual L” and “Dual R” of the multi-audio broadcasting are recorded on HDD. Titles recorded on HDD under such setup status cannot be copied to DVD-R or DVD-RW (V mode).
- **On** : Either “Dual L” or “Dual R” of the multi-audio broadcasting is recorded on HDD. Titles recorded on HDD under such setup status can be copied to DVD-R or DVD-RW (V mode). “Dual L” and “Dual R” options can be selected from “Audio Selection.”





playback

This section introduces basic functions of playback and playback by disc type. Read the following information before playing a disc.

REGION CODE (DVD-VIDEO ONLY)

Both the HDD & DVD RECORDER and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play. The Region Number for this HDD & DVD RECORDER is described on the rear panel of the HDD & DVD RECORDER.

LOGOS OF DISCS THAT CAN BE PLAYED

Dolby Digital	DTS	Digital Audio	
Stereo	PAL broadcast system in U.K, France, Germany, etc.	DivX	MP3

DISC TYPES THAT CAN BE PLAYED

Disc Types	Disc Logo content	Recorded content	Disc Shape	Max. Playing Time
DVD-VIDEO	DVD VIDEO	VIDEO AUDIO	Single sided(12cm)	240 min.
			Double sided(12cm)	480 min.
			Single sided(8cm)	80 min.
			Double sided(8cm)	160 min.
AUDIO-CD	COMPACT disc DIGITAL AUDIO	AUDIO	Single sided(12cm)	74 min.
			Single sided(8cm)	20 min.
JPEG		JPEG Image	Single sided(12cm)	–
			Single sided(8cm)	–
MP3		MP3 Audio	Single sided(12cm)	–
			Single sided(8cm)	–
DivX	DivX	DivX Movie	Single sided(12cm)	–
			Single sided(8cm)	–

Disc Types	Disc Logo content	Recorded content	Disc Shape	Max. Playing Time
DVD-RAM		AUDIO VIDEO	Single Layer(12cm) (4.7GB)	1 hr. (XP: Excellent Quality)
				2 hrs. (SP: Standard Quality)
				4 hrs. (LP: Long Playback)
				6 or 8 hrs. (EP: Extended)
			Dual Layer(12cm) (9.4GB)	2 hr. (XP: Excellent Quality)
				4 hrs. (SP: Standard Quality)
				8 hrs. (LP: Long Playback)
				12 or 16 hrs. (EP: Extended)
DVD-RW		AUDIO VIDEO	12cm (4.7GB)	1 hr. (XP: Excellent Quality)
				2 hrs. (SP: Standard Quality)
				4 hrs. (LP: Long Playback)
				6 or 8 hrs. (EP: Extended)
DVD-R		AUDIO VIDEO	Single Layer(12cm) (4.7GB)	1 hr. (XP: Excellent Quality)
				2 hrs. (SP: Standard Quality)
				4 hrs. (LP: Long Playback)
				6 or 8 hrs. (EP: Extended)
			Dual Layer(12cm) (8.5GB)	1 hr. 50 min (XP: Excellent Quality)
				3 hrs. 40 min (SP: Standard Quality)
				7 hrs. 20 min (LP: Long Playback)
				11 or 14 hrs. 40 min (EP: Extended)
DVD+RW		AUDIO VIDEO	12cm (4.7GB)	1 hr. (XP: Excellent Quality)
				2 hrs. (SP: Standard Quality)
				4 hrs. (LP: Long Playback)
				6 or 8 hrs. (EP: Extended)
DVD+R		AUDIO VIDEO	Single Layer(12cm) (4.7GB)	1 hr. (XP: Excellent Quality)
				2 hrs. (SP: Standard Quality)
				4 hrs. (LP: Long Playback)
				6 or 8 hrs. (EP: Extended)
			Dual Layer(12cm) (8.5GB)	1 hr. 50 min (XP: Excellent Quality)
				3 hrs. 40 min (SP: Standard Quality)
				7 hrs. 20 min (LP: Long Playback)
				11 or 14 hrs. 40 min (EP: Extended)
CD-R/-RW DVD-RAM/±RW/±R		JPEG MP3 DivX	–	–

Discs that cannot be played

- DVD-Video with a region number other than “2” or “ALL”
- 3.9 GB DVD-R Disc for Authoring.
- DVD-RAM/-RW(VR mode) not recorded following the Video Recording Standard
- A DVD±R/DVD-RW(V) disc which has been recorded and not finalised in a different manufacturer’s recorder.
- DVD-ROM/PD/MV-Disc, etc
- CVD/CD-ROM/CDV/CD-G/CD-I

- This HDD & DVD RECORDER can only operate with discs that are compatible with DVD-RAM Standard Version 2.0.
- Playback and/or recording may not work for some types of discs, or when specific operations, such as angle change and aspect ratio adjustment, are being performed. Information about the discs is written in detail on the box. Please refer to this if necessary.
- Do not allow the disc to become dirty or scratched, finger prints, dirt, dust, scratches or deposits of cigarette smoke on the recording surface may make it impossible to use the disc for recording.
- DVD-RAM/±RW/±R discs may not be able to play on some DVD players, depending on the player, disc and the condition of the recording.
- Discs with NTSC programmes recorded on them cannot be played and recorded using this product.

PLAYING A DISC

1. Press the **OPEN/CLOSE** button.
2. Place a disc gently into the tray with the disc’s label facing up.
3. Press the **OPEN/CLOSE** button to close the disc tray.
   - Your HDD & DVD RECORDER closes the disc tray and plays the disc automatically.
   - The HDD & DVD RECORDER does not play discs automatically after being powered on initially.
   - When the HDD & DVD RECORDER is powered on and a disc is in the tray, the unit will be activated and wait in stop status.
   - Press the **PLAY** (▶) button to start playback.
   - If you want the unit to play automatically when it is powered on with a disc in the unit, power on with the **PLAY** (▶) button.
4. Press the **STOP** (■) button to stop playback.

- When you stop playing back a disc, the HDD & DVD RECORDER remembers where you stopped, so when you press **PLAY** (▶) button again, it will pick up where you left off. (Unless the disc is removed or the HDD & DVD RECORDER is unplugged, or if you press the **STOP** (■) button twice.)

- Do not move your HDD & DVD RECORDER while playing, as this may cause damage to the disc.
- Make sure to press the **OPEN/CLOSE** button to open or close the disc tray.
- Do not push the disc tray while it is being opened or closed, as this may cause a product malfunction.
- Do not place foreign materials on or in the disc tray.
- Some functions may perform differently or be disabled depending on the disc type.
  If this occurs, refer to the instructions written on the disc case.
- Be especially careful that children’s fingers are not caught between the disc tray and the tray chassis when it closes.
- You must only insert one DVD disc at a time. Inserting two or more discs will not allow playback and may cause damage to the HDD & DVD RECORDER.

USING THE DISC MENU & TITLE MENU

Some type of discs contain a dedicated menu system that allows you to select special functions for title, chapter, audio track, subtitle, film preview, information on characters, etc.

For DVD-VIDEO Disc

- **Disc Menu** : Press the **DISC MENU** button to enter the disc menu of the disc.
  - Move to the setup menu related to playback operation.
  - You can select audio language and subtitle etc. provided by the disc.
- **Title Menu** : Press the **TITLE MENU** button to move to the title menu of the disc.
  - Press this button if the disc contains more than one title. Some discs may not support the title menu functionality.

For HDD/DVD-RAM/-RW/-R Disc

- **Title List**
  Press the **TITLE LIST** button. Title List is a list of previously recorded programmes. If a title is deleted, that title cannot be played again.
- **Play List (HDD/DVD-RAM/-RW(VR))**
  Press the **PLAY LIST** button. This refers to a list of user-selected titles. When one playlist is played, only the scene selected by the user will play and then stop. Since only the information necessary for playing a desired scene is included in a playlist, even if that playlist is deleted, the original recording will not be deleted. (only VR mode)

USING THE PLAYBACK RELATED BUTTONS

Searching through a Chapter or Track

During play, press the **SEARCH** (◀◀ ▶▶) buttons on the remote control.

HDD/DVD-VIDEO/ DVD-RAM/-RW/-R	▶▶ X 2 → ▶▶ X 4 → ▶▶ X 8 → ▶▶ X 16 → ▶▶ X 32 → ▶▶ X 128
DivX	▶▶ X 2 → ▶▶ X 4 → ▶▶ X 8
AUDIO CD (CD-DA)	▶▶ X 2 → ▶▶ X 4 → ▶▶ X 8

- You can scan the programme in reverse.
- When you press and hold the **SEARCH** (◀◀ ▶▶) buttons, playback is done at the default speed of X 4. If you release the **SEARCH** (◀◀ ▶▶) buttons , playback is performed at a normal speed.
- To return to normal speed playback, press the **PLAY** (▶) button.

- You can hear sound during forward search(X 2) in HDD/DVD-VIDEO/DVD-RAM/-RW/-R disc. (No sound is heard during Scan(Search) mode in DivX disc.)
- The speed marked in this function may be different from the actual playback speed.

Skipping Chapters, Titles or Markers

During play, press the **SKIP** (⏮ ⏭) buttons on the remote control.

- **If you press the SKIP (⏮) button,**
  it moves to the beginning of the chapter or Title or marker (HDD/DVD-RAM/-RW(VR mode)).
  Pressing the button once again within 3 seconds returns to the beginning of the previous chapter or Title or marker (HDD/DVD-RAM/-RW(VR mode)).
- **If you press the SKIP (⏭) button,**
  it moves to the next chapter or track or marker (HDD/DVD-RAM/-RW(VR mode)).

Slow Motion Play

In pause mode, press the **SEARCH** (⏪ ⏩) buttons on the remote control.

- **If you press the SEARCH (⏩) button,**
  ▶❙ 1/2 ➞ ▶❙ 1/4 ➞ ▶❙ 1/8
- **If you press the SEARCH (⏪) button,**
  ❙◀ 1/2 ➞ ❙◀ 1/4 ➞ ❙◀ 1/8
- To return to normal speed playback, press the **PLAY** (▶) button.

Press and hold the **SEARCH** (⏪ ⏩) buttons during pause, the disc will play slowly at 1/4 speed.
If the button is released, the pause operation will resume.

- The speed marked in this function may be different from the actual playback speed.
- Slow motion operates only in the forward direction on DivX discs.

Step Motion Play

Press the **SKIP**(⏮, ⏭) buttons on the remote control in the pause mode.

- Each time the button is pressed, a new frame will appear.
  When the **SKIP**(⏮) button is pressed, the previous frame will be activated.
  When the **SKIP**(⏭) button is pressed, the next frame will be activated.
- To return to normal speed playback, press the **PLAY** (▶) button.

- Step motion operates only in the forward direction on DivX discs.

USING THE INFO BUTTON

The INFO function allows you to easily search for a desired scene by accessing title, chapter, or time.
You can also change the subtitle and audio settings and set some features including Angle, Repeat, and Zoom.

Moving to a scene directly using the INFO

HDD DVD-VIDEO DVD-RAM DVD-RW DVD-R DivX

If you want to move to a certain title, chapter or time, use this function.

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Search**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Title, Chapter** or **Time**.
4. Press the ◄► buttons or number buttons to select the desired scene, then press the **OK** button.
   In case of searching a time, enter the time in the sequence of hours, minutes, and seconds using the number buttons.
   Then press the **OK** button.

- This may not work for some discs.
  When an audio CD(CD-DA) or an MP3/JPEG disc is inserted, depending on the disc type, the information display may not appear.
- The Time Search function does not operate on some discs.
- To make the screen disappear, press the **RETURN** button.

SELECTING THE SUBTITLE LANGUAGE

DVD-VIDEO DivX

Selects one of the subtitle languages recorded on the disc.
You can also operate this function by pressing the **SUBTITLE** button on the remote control.

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Subtitle**.
3. Press the ◄► buttons to select the desired subtitle language.

- The subtitle display may be different depending on the disc type.
- Some discs allow you to select the language from the disc menu only.

SELECTING THE SOUNDTRACKS & AUDIO CHANNELS

Selects one of the soundtracks recorded on the disc. Also selects the audio channels from recorded TV programmes.

You can also operate this function by pressing the **AUDIO** button on the remote control.

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Audio**.
3. Press the ◄► buttons to select the desired soundtracks or audio channel.

- Soundtracks or Audio channel may be different because they are disc-specific.
- Some discs allow you to select the audio language from the disc menu only.

CHANGING THE CAMERA ANGLE

When a DVD VIDEO contains multiple angles of a particular scene, you can select the Angle function.

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Angle**.
3. Press the ◄► buttons to select the desired angle.

- This function is disc-dependent, and may not work on all DVDs.
- This function does not work when a DVD has not been recorded with a multi-camera angle system.
- Displays the current angle and the total angle number.

REPEAT PLAY

Playing Repeatedly (Repeat Playback)

You can also operate this function by pressing the **REPEAT** button on the remote control.

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select the **Repeat**.
3. Press the ◄► buttons to select **Off**, **A-B** or **Title** or **Chapter** you want to play repeatedly, then press the **OK** button.

- HDD/DVD-RAM/-RW(VR mode), unfinalised DVD-R and unfinalised DVD-RW (V mode) discs will do not repeat a chapter.
- You can also activate Normal Playback by pressing the **EXIT** (⏎) button.

Repeat A-B

HDD DVD-VIDEO DVD-RAM DVD-RW DVD-R

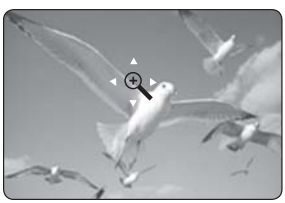
1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Repeat**.
3. Press the ◄► buttons to select **A-B**, then press the **OK** button.
4. Press the **OK** button at the point where you want the repeat play to start (A) and press it again at the point where you want the repeat play to stop (B). Repeat playback of the A-B section starts.

- If you set point (B) before five seconds of playback has lapsed, the prohibition mark (⊘) will appear.
- You can also activate Normal Playback by pressing the **EXIT** (↩) button.
- Audio CDs(CD-DA), MP3 discs and DivX discs do not support the Repeat A-B function.

ZOOMING-IN

HDD DVD-VIDEO DVD-RAM DVD-RW DVD-R

1. Press the **INFO** button during playback.
2. Press the ▲▼ buttons to select **Zoom**, then press the **OK** or ► button. (🔍) will be displayed.
3. Press ▲▼◄► buttons to move to the area you want to enlarge.
4. Press the **OK** button.
   The screen will be enlarged to twice the normal size. Pressing the **OK** button again to enlarge the screen size to four times the normal size.



HDD/DVD-VIDEO/DVD-RAM/-RW/-R	normal size → X2 → X4 → X2 → normal size

- When the recording is done in EP mode, the zoom function is not supported except when the recording has been in V mode.

USING MARKERS

HDD DVD-RAM DVD-RW
(VR mode)

Set marks at scenes you want to see again so that you can start playback from the marked position.

Setting Markers

1. Press the **MARKER** button during playback.
2. Press the **OK** button when the desired scene appears.
   - The number 01 is displayed and the scene is memorized.
3. Press the ► button to move to the next position.
4. Press the **OK** button again when the desired scene appears.
   - The number 02 is displayed and the scene is memorized.
   - HDD, DVD-RAM or DVD-RW (VR Mode) discs have the Marker function instead of the Bookmark function. Since the scenes may be displayed as many different pages, numbering is necessary.
     If a disc in use is encoded with Disc Protection, Markers cannot be set or deleted, only playback is available.

Playing back a marker

1. Press the **MARKER** button during playback.
2. Press the ◄► buttons to select a marked scene.
3. Press the **OK** or **PLAY** (▶) button to start playing from the selected scene.
   - If you press the **SKIP** (⏮) button, it moves to the beginning of the marker. Pressing the button once again within 3 seconds returns to the beginning of the previous marker.
   - If you press the **SKIP** (⏭) button, it moves to the next marker.

Clearing a marker

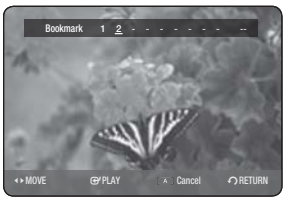
1. Press the **MARKER** button during playback.
2. Press the ◄► buttons to select a marked scene.
3. Press the **RED(A)** button to delete the selected mark.
   - When a marker is cleared while HDD/DVD-RAM/-RW (VR mode) is playing, marker numbers will change. For example, if the 7th marker is cleared after ten markers are registered, the marker numbers after the eighth will automatically move back by one and the 8th marker becomes the 7th.

USING THE BOOKMARKS

DVD-VIDEO DVD-RW DVD-R
(V mode)

Setting Bookmarks

1. Press the **MARKER** button during playback.
2. Press the **OK** button when the desired scene appears.
   - The number **1** is displayed and the scene is memorized.
3. Press the ► button to move to the next position.
4. Press the **OK** button again when the desired scene appears. The number **2** is displayed and the scene is memorized.
   - Repeat above to bookmark other positions.
   - You can bookmark up to 10 scenes.



■ When the disc tray is opened and then closed, bookmarks will disappear.

Playing back a bookmark

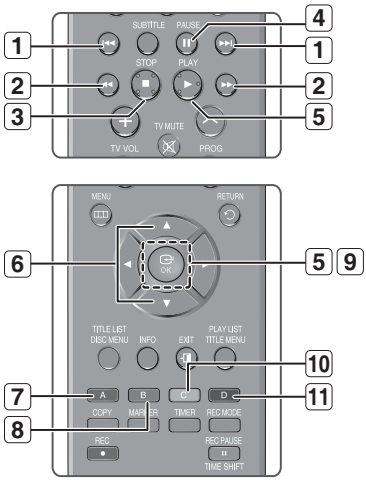
1. Press the **MARKER** button during playback.
2. Press the ◄► buttons to select a bookmarked scene.
3. Press the **OK** or **PLAY** (▶) button to start playing from the selected scene.

Clearing a bookmark

1. Press the **MARKER** button during playback.
2. Press the ◄► buttons to select a bookmarked scene.
3. Press the **RED(A)** button to delete the selected bookmark.

PLAYING AN AUDIO CD/MP3

Buttons on the Remote Control used for Audio CD(CD-DA)/MP3 playback

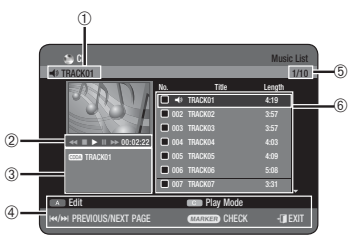


1	**SKIP (⏮ ⏭) button** : Moves to the previous or next page.
2	**Press the SEARCH (⏪ ⏩) buttons** : Fast Play (X 2, X 4, X 8) (Audio CD only)
3	**STOP (■) button** : Stops a track(song).
4	**PAUSE (⏸) button** : Pauses playback.
5	**PLAY (▶), OK button** : Plays a track (song).
6	▲▼ : Selects a track (song).
7	**RED(A) button** : • Creates a playlist or go to playlist. • Select All : MP3, CD-DA • Copy : MP3 • CD Import : Audio CD
8	**GREEN(B) button** : Selects the sort order. (MP3 disc only)
9	**OK button** : Plays the selected track (song).
10	**YELLOW(C) button** : Selects the play mode. (REPEAT)
11	**BLUE(D) button** : Selects a contents. (MP3 disc only)

Playing an Audio CD(CD-DA)

1. Insert an audio CD (CD-DA) into the disc tray.
   - The audio CD menu appears and the tracks (songs) are played automatically.
2. Press the ▲▼ buttons to select the track (song) you want to hear, and then press the **OK** button.

Audio CD(CD-DA) Screen Elements

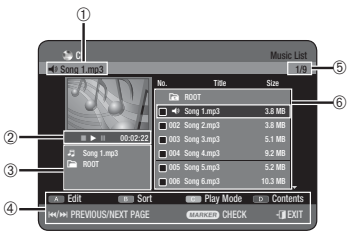


1	**Current track (song)** : Displays the number of the track currently being played.
2	Displays available buttons and a playback time corresponding to a portion that is currently played.
3	Displays the current file type and file name.
4	Display available buttons.
5	Displays the current play index, total track number.
6	Displays the track list (song list).

Playing an MP3 Disc

1. Insert an MP3 disc into the disc tray.
   - The menu is displayed
2. Press the ▲▼ buttons to select **Library**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Music**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select the track you want to hear, and then press the **OK** button.

MP3 Screen Elements

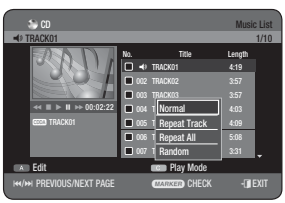


1	**Current track (song)** : Displays the name of the track being played.
2	Displays available buttons and a playback time corresponding to a portion that is currently played.
3	Displays the current file type, file name and folder name.
4	Displays available buttons.
5	Displays the current play index, total track number.
6	Displays the track list (song list).

Repeat CD (CD-DA) & MP3

You can also operate this function by pressing the **REPEAT** button on the remote control.
During playback, press the **REPEAT** button repeatedly to select the repeat mode you want.

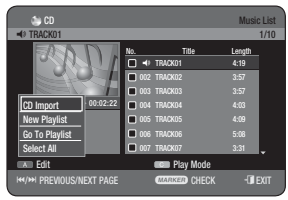
1. Press the **YELLOW(C)** button during the Music List playback.
2. Press the ▲▼ buttons to select desired play mode, then press the **OK** or ► button.
   - **Normal (CD (CD-DA)/MP3)** : Tracks on a disc are played in the order in which they were recorded on the disc.
   - **Repeat Track (CD (CD-DA)/MP3)**
   - **Repeat Folder (MP3)**
   - **Repeat All (CD (CD-DA)/MP3)**
   - **Random (CD (CD-DA)/MP3)** : The random option plays a disc's tracks in random order.

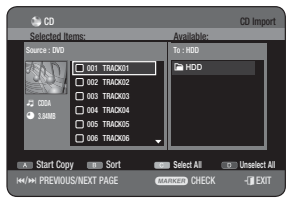


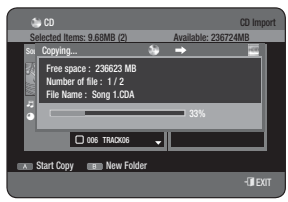
CD Import

Audio CD

1. Press the **RED(A)** button during the Music List playback.
2. Press the ▲▼ buttons to select **CD Import**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select file you want to copy, then press the **MARKER** button until a checkmark appears.
   - If you don't want to copy a certain one of the checked entries, simply select that entry and press **MARKER** button to deselect it until a checkmark disappears.
4. Press the ►▲▼ buttons to select the target media,then press the **OK** button.
   - You can create a new folder by pressing the **GREEN(B)** button.
5. Press the **RED(A)** button to select Start Copy.
   The message "Number of file : x" is displayed.
6. Press the ◄► buttons to select **Start**, then press the **OK** button.
   File copy begins.
   - To cancel the copying in progress, press the **EXIT** (⏻) button.







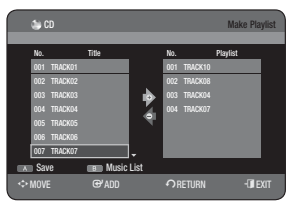
- The format of a mp3 file after imported is as follows:
  Bitrate 128kbps
  Channel 2(stereo)
  Sampling Rate 44KHz
- DTS CDDA and copy protected discs can not be imported.

New Playlist

Audio CD MP3

You can register a maximum 30 tracks in the playlist.

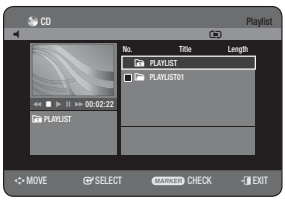
1. Press the **RED(A)** button during the Music List playback.
2. Press the ▲▼ buttons to select **New Playlist**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select tracks in the order in which you want them to play, then press the **OK** button.
   - If you playlisted a wrong track, press the ►▲▼ buttons to select the wrong track, then press the **OK** button.
4. To store the Playlist, press the **RED(A)** button.
   A new Playlist will be created.



Go To Playlist

Audio CD MP3

1. Press the **RED(A)** button during the Music List playback.
2. Press the ▲▼ buttons to select **Go To Playlist**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select the desired playlist folder, then press the **OK** button.
   The selected tracks are played automatically.



Delete the Playlist

Audio CD MP3

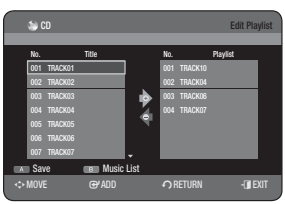
1. Press the **RED(A)** button during the Music List playback.
2. Press the ▲▼ buttons to select **Go To Playlist**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select the Playlist you want to delete.
4. Press the **RED(A)** button.
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   The selected Playlist is deleted.

▪ When the player turns off or opens a file /disconnects, any playlists in the disc will be deleted.

Go To Edit Playlist

Audio CD MP3

1. Press the **RED(A)** button during the Music List playback.
2. Press the ▲▼ buttons to select **Go To Playlist**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select the Playlist you want to edit.
4. Press the **GREEN(B)** button in playlist mode.
5. Press the ▲▼ buttons to select tracks in the order in which you want them to play, then press the **OK** button.
   • If you playlisted a wrong track, press the ►▲▼ buttons to select the wrong track, then press the **OK** button.
6. To store the Playlist, press the **RED(A)** button.
   Playlist will be edited.



Go To Music List

Audio CD MP3

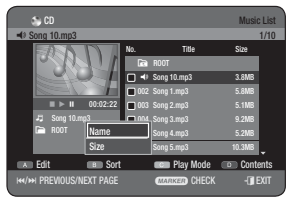
1. Press the **BLUE(D)** button during the Playlist playback. The Music List will be displayed.

Using the Sort

MP3

When you need to change the Sort order of Music List, you can change it simply.

1. While the list menu is displayed, press the **GREEN(B)** button to select **Sort**.
2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.
   - **Name** : In alphabetical order
   - **Size** : In order of audio file size.

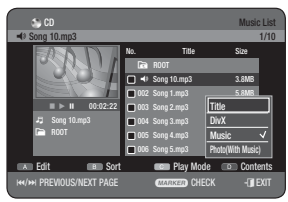


- Audio CD(CD-DA) is not available.
- You can sort by Name, Length. Sorted list will be resorted in copied order upon reentering Music List.

Select Contents

MP3

1. Press the **BLUE(D)** button to select **Contents**.
2. Press the ▲▼ buttons to select the contents you want to move, then Press the **OK** or ► button.



- This function is possible only when the disc contains the selected contents.
- Audio CD(CD-DA) is not available.

Music/Photo Simultaneous Playback

MP3

You can listen to the music while watching the photo.

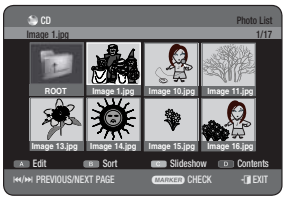
1. Press the **BLUE(D)** button to select **Contents**.
2. Press the ▲▼ buttons to select the **Photo(With Music)**, then Press the **OK** or ► button.
   The photo List will be displayed. (See page 55)

- To operate this function, you have to select the disc containing both music files and photo file.

VIEWING A PICTURE

JPEG

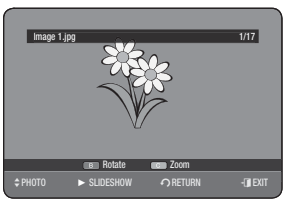
1. Insert a JPEG disc into the disc tray.
   - The menu is displayed
2. Press the ▲▼ buttons to select **Library**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Photo**, then press the **OK** or ► button.
   - To see the next 8 pictures, press the **SKIP** (⏭) button.
   - To see the previous 8 pictures, press the **SKIP**(⏮) button.
4. Press the ▲▼◄► buttons to select a desired picture, then press the **OK** button.

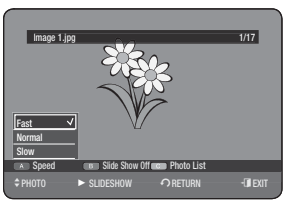


Slide Show

To setup, follow steps 1 and 4 above.

5. Press the **PLAY** (▶) button.
   - Once in the Photo List, you can also operate slideshow in by pressing the **YELLOW(C)** button.
6. Press the **RED(A)** button to select **Speed**.
7. Press the ▲▼ buttons to select the slideshow speed, then press the **OK** or ► button.
   The slideshow starts and plays at the selected speed.
   - You can go to **Photo List** by pressing **YELLOW(C)** button.





❖ To stop the Slide Show

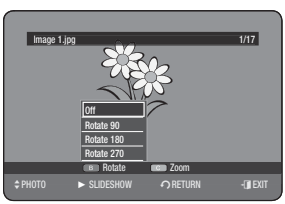
Press the **GREEN(B)**, **STOP** (■) or **RETURN** button.

Rotate

To setup, follow steps 1 and 4 above.

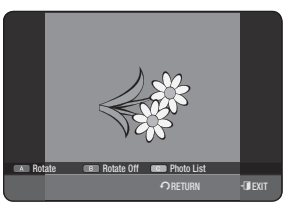
5-1. Press the **GREEN(B)** button to select **Rotate**.

6. Press the ▲▼ buttons to select the rotate angle, then press the **OK** or ► button.
   - Once you select a rotate angle, you can change it by pressing the **RED(A)** button.
   - You can go to **Photo List** by pressing **YELLOW(C)** button.



❖ To stop the Rotate

Press the **GREEN(B)**, **STOP** (■) or **RETURN** button.



Zoom

To setup, follow steps 1 to 4 in page 55.

5-1. Press the **YELLOW(C)** button to select **Zoom**.

6. Each time the **OK** button is pressed, the picture is enlarged up to 4x (four times the normal size).

→ X2 → X4 → X2 → Normal

- You can go to **Photo List** by pressing **YELLOW(C)** button.

❖ **To stop the Zoom**

Press the **GREEN(B)**, **STOP** (⊙) or **RETURN** button.

Go To Photo List

To setup, follow steps 1 to 4 in page 55.

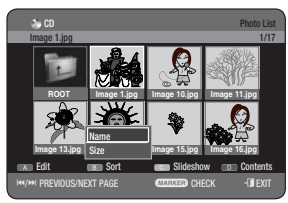
5-1. Press the **RETURN** button to go to **Photo List**.

Using the Sort

When you need to change the Sort order of Photo List, you can change it simply.

1. While the list menu is displayed, press the **GREEN(B)** button to select **Sort**.

2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.
- **Name** : In alphabetical order
- **Size** : In order of photo file size.



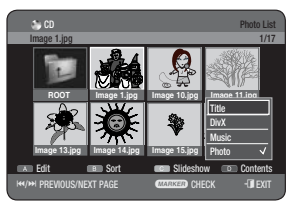
▪ You can sort by Name and Size. Sorted list will be resorted in copied order upon re-entering Photo List.

Select Contents

To setup, follow steps 1 to 3 in page 55.

1. Press the **BLUE(D)** button to select **Contents**.

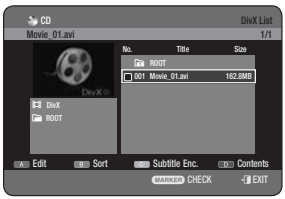
2. Press the ▲▼ buttons to select the contents you want to move, then Press the **OK** or ► button.



▪ This function is possible only when the disc contains the selected contents.

PLAYING A DIVX

Using the MENU button



1. Insert a DivX disc into the disc tray.
   - The menu is displayed
2. Press the ▲▼ buttons to select **Library**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **DivX**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select the avi file (DivX), then press the **OK** or **PLAY** (▶) button.
5. When DivX file is played, you can use following functions. Pressing the **STOP** (■) button once during playback will display the file list, pressing the button again will exit the menu screen.

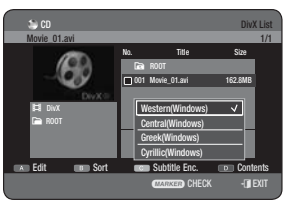
DivX Function Description

Function	Description
Skip Scene	During play, press the **SKIP** (⏮⏭) buttons, it moves forward or backward 5 minutes.
Search	During play, press the **SEARCH** (◀◀ ▶▶) buttons and press again to search at a faster speed. (X 2, X 4, X 8)
Slow Motion Play	In pause mode(⏸), press the **SEARCH** (▶▶) button on the remote control. (1/2, 1/4, 1/8) Reverse Slow Motion Play is not available.
Step Motion Play	In pause mode(⏸), press the **SKIP** (⏭) button on the remote control in the still mode. Reverse Step Motion Play is not available.

- Some DivX files created on a personal computer may not be play back. That is why Codec Type, Version and Higher resolution over specification are not supported.

DivX Subtitle Encoding

1. Press the **YELLOW(C)** button in the file list.
2. Press the ▲▼ buttons to select a supported DivX subtitle language by region, then press the **OK** button.

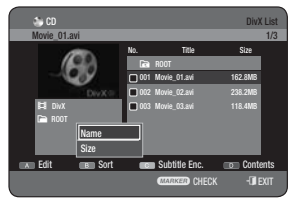


Western	Afrikaans, Basque, Catalan, Danish, Dutch, English, Faeroese, Finnish, French, German, Icelandic, Indonesian, Italian, Malay, Norwegian, Portuguese, Spanish, Swahili, Swedish
Central	English, Albanian, Croatian, Czech, Hungarian, Polish, Romanian, Serbian(Latin), Slovak, Slovenian
Greek	English, Greek
Cyrillic	English, Azeri, Belarusian, Bulgarian, Kazakh, Macedonian, Russian, Serbian, Tatar, Ukrainian, Uzbek

- If the subtitle language is displayed in broken fonts, change DivX Subtitle to the appropriate region. If is still does not work, the format is not supported.

Using the Sort

When you need to change the Sort order of DivX List, you can change it simply.

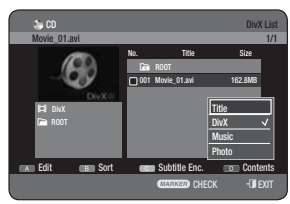


1. While the list menu is displayed, press the **GREEN(B)** button to select **Sort**.
2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.
   - **Name** : In alphabetical order
   - **Size** : In order of DivX file size.

- You can sort by Name, Size. Sorted list will be resorted in copied order upon reentering DivX List.

Select Contents

1. Press the **BLUE(D)** button to select **Contents**.
2. Press the ▲▼ buttons to select the contents you want to move, then Press the **OK** or ► button.



- This function is possible only when the disc contains the selected contents.

recording

This section shows various HDD & DVD Recording methods.
This unit can record on various types of discs. Before recording, read the following instructions and select the disc type according to your preference.

RECORDABLE DISCS

This HDD & DVD RECORDER can record on the following discs.

HDD	DVD-RAM	DVD-RW	DVD-R
HDD	DVD RAM	DVD RW	DVD R

- DVD-RAMs and DVD-RWs are rewritable.
- DVD-Rs are non-rewritable.

Compatibility between Samsung and Other Company's Recorder

Disc Types	Recording format	Recording Device	Finalising	Additional Recording in Samsung Recorder
DVD-RAM	VR Mode	Samsung	X	Recordable
		Other Company	X	Recordable
DVD-RW	VR Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Recordable
	V Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Not recordable
DVD-R	V Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Not recordable

- Finalise
  - This closes the DVD-RW/-R so no additional recording can be done.
- Unfinalise
  - This allows additional recording on a DVD-RW disc originally recorded on the HDD & DVD RECORDER.
  - A DVD-RW disc that has been recorded by DAO(Disc At Once) in a PC cannot be unfinalised.
  - A DVD-RW disc that has been recorded in Video Mode of a different maker's recorder cannot be unfinalised.
  - A DVD-R disc cannot be unfinalised.

RECORDING FORMATS

When you insert an unused disc, the following message appears. Since available functions differ depending on the disc type, select a disc that best fits your preferences.

DVD-RAM : Formatting will be started automatically.

DVD-RW : Use after initializing the disc.
If you want to change the VR or V mode, refer to Formatting a Disc on page 90.

DVD-R : Formatting disc is unnecessary and only V Mode Recording is supported.

DVD-RAM/-RW(VR mode)

- This mode allows multiple editing functions (such as deletion of the whole title, partial deletion of a title, etc.).
- Various editing options using a created Playlist.

DVD-RW(V mode)/-R

- Chapters will be created automatically when you finalise recording on DVD-RW/-R discs in V mode. The chapter's length (interval between chapters) varies according to the recording mode.
- Simple editing (erasing titles/changing title name).

RECORDING MODE

Select one of four recording modes by pressing the **REC MODE** button repeatedly while the unit is in Stop mode for the desired recording time and picture quality. In general, picture quality improves as the recording time decreases. In FR mode, the most suitable record mode is adjusted automatically, according to remaining time on the disc and length of the timer recording. This function is selected only one mode in XP, SP, LP and EP modes and you can use this mode for timer recording.

• DVD-HR770

Recording Mode	Recording Times	
	HDD (160GB)	DVD-RAM/-RW/-R
XP (high quality mode)	Approx. 33 hours	Approx. 1 hour about 8.5 Mbps
SP (standard quality mode)	Approx. 67 hours	Approx. 2 hours about 4.5 Mbps
LP (long recording mode)	Approx. 133 hours	Approx. 4 hours about 2 Mbps
EP (extended mode)	Approx. 199 hours Approx. 264 hours	Approx. 6 hours/ about 1.6 Mbps Approx. 8 hours/ about 1.2 Mbps
FR (Flexible Recording)	Approx. 33 hours ~ 264 hours	Approx. 1~8 hours

- Recording time may vary according to specific conditions.
- 1GB = 1,000,000,000 bytes; actual formatted capacity may be less as the internal firmware uses a portion of the memory.
- The dual layer DVD-Rs have approximately double the capacity of single layer DVD-Rs. (See page 41)

UNRECORDABLE PICTURES

Video with copy protection cannot be recorded on this HDD & DVD RECORDER.

When the HDD & DVD RECORDER receives a copy- guard signal while recording, recording stops and the following message appears on the screen.

Concerning Copy Control Signals

TV broadcasts that contain copy control signals may have one of the following three signal types, Copy-Free, Copy-Once and Copy-Never. If you want to record a copy-once type programme, use DVD-RW with CPRM in VR Mode, DVD-RAM, HDD.

Signal type / Media	Copy-Free	Copy-Once	Copy-Never
DVD-RW (Ver.1.1)	0	–	–
DVD-RW(Ver.1.1) with CPRM			
VR mode	0	0*	–
V mode	0		–
DVD-R	0	–	–
DVD-RAM (Ver.2.0)	0	0*	–
HDD	0	0*	–

Once “Copy Once” has been recorded, recording cannot be done anymore.

❖ Content Protection for Recordable Media (CPRM)

CPRM is a mechanism that ties a recording to the media on which it is recorded. It is supported by some HDD & DVD RECORDERs, but not by many DVD players. Each blank recordable DVD has a unique 64-bit media ID etched in the BCA. When protected content is recorded onto the disc, it can be encrypted with a 56-bit C2 (Cryptomeria) cipher derived from the media ID.

During playback, the ID is read from the BCA and used to generate a key to decrypt the contents of the disc. If the contents of the disc are copied to other media, the ID will be absent or wrong and the data will not be decryptable.

RECORDING IMMEDIATELY

HDD DVD-RAM DVD-RW DVD-R

Before you start

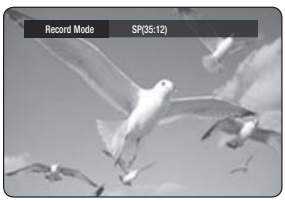
1. Check that the disc has enough available space for the recording.
2. Press the **HDD** or **DVD** button.
   If you select DVD, Press the **OPEN/CLOSE** button and place a recordable disc on the disc tray.
   Press the **OPEN/CLOSE** button to close the disc tray.
   Wait until **LOAD** disappears from the front panel display.

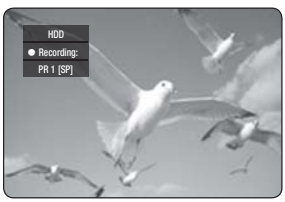
Recording the current TV programme you are watching

1. Press the **PROG** (◡ ◠) or number buttons to select the current programme you want to record.
2. Press the **REC MODE** button repeatedly, (or press the **REC MODE** button and then press the ▲▼ buttons) to select the recording speed(quality).

   → SP → LP → EP → XP →

3. Press the **REC** button.
   Information concerning the channel is displayed on the screen, then recording begins.
   Icon(◯) is displayed on the front panel.





Recording from external equipment you are watching

1. Press the **INPUT SEL.** button to select the input source according to the connection you made.
   The front panel display changes in the following sequence:

   → PR Number → AV1 → AV2 → AV3 →

2. Press the **REC MODE** button repeatedly, (or press the **REC MODE** button, then press the ▲▼ buttons) to select the recording speed (quality).
3. Press the **REC** button.
   Information concerning the external input mode is displayed on the screen, then recording begins.
   Icon(◯) is displayed on the front panel.

To pause recording

- Press the **REC PAUSE** button to pause a recording in progress.
- Press the **REC PAUSE** button again during pause to resume recording.
- You can switch channels by pressing the **PROG** (∨ ∧) buttons while recording pauses.

To stop recording

Press the **STOP** (■) button to stop or finish a recording in progress.

- When using DVD-RAM/-RW/-R discs, the message "Updating the information of disc. Please wait for a moment" is displayed.

- You can not change the recording mode while recording.
- Recording will stop automatically if there is no free space left for recording.
- Up to 99 titles can be recorded onto a DVD-RAM/-RW/-R disc
- Up to 999 titles can be registered on the HDD.
- HDD recording is available for up to 24 hours, and when recording for 24 hours, 3 titles will be recorded with each being 8 hours in length.
- Recording will stop automatically if a copy protected image is selected.
- DVD-RAM/-RW discs must be formatted before starting to record. Most new discs are sold unformatted.
- Do not use DVD-R authoring discs with this unit.

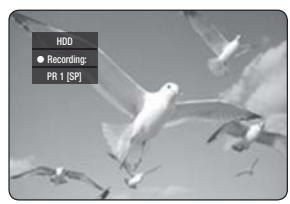
MAKING A ONE TOUCH RECORDING (OTR)

HDD DVD-RAM DVD-RW DVD-R

You can set the HDD & DVD RECORDER to record in 30-minute increments up to 8 hours by pressing the **REC** button.

1. Press the **HDD** or **DVD** button.
   If you select DVD, press the **OPEN/CLOSE** button and place a recordable disc on the disc tray. Press the **OPEN/CLOSE** button to close the disc tray. Wait until **LOAD** disappears from the front panel display.
2. Press the **PROG** (∨ ∧) or number buttons to select the programme to record.
3. Press the **REC** button to start recording.
4. Press the **REC** button repeatedly to adjust the desired recording time.

   0:30 → 1:00 → ... 8:00 → Off



- The timer counter decreases by the minute from 8:00 to 0:00, then the HDD & DVD RECORDER stops recording.

To stop recording

Press the **STOP** (■) button. The message "Do you want to stop recording?" is displayed.

- Press the ◄► buttons to select **Yes**, then press the **OK** button.
- Or press the **STOP** (■) button again.

SIMULTANEOUS RECORDING AND PLAYBACK

HDD

You can play back from the beginning of the programme you are currently recording.
You can watch the previous title list while recording a programme.

Using the PLAY (▶) button

1. With the unit in recording mode, press the **PLAY** (▶) button.
   It plays back the title that you are currently recording from the beginning.
   Playback is not available for 10 seconds from the start of recording.
   You can use the **SKIP** (⏮ ⏭) and other playback-related buttons to view the previous recorded list.

Stopping Playback / Recording

1. Press the **STOP** (■) button. Playback screen disappears and the recording in progress screen appears.
2. Pressing the **STOP** (■) button once more will stop the recording.

Using the TITLE LIST button

1. With the unit in recording mode, press the **TITLE LIST** button.
   The above operation is possible from approx.10 seconds or more after recording starts.
   Press the ▲▼/**SKIP** (⏮ ⏭) buttons to select the recording title list.
2. Press the **OK** or **PLAY** (▶) button.
   It plays back the title that you are currently recording from the beginning.

Using the MENU button

1. With the unit in recording mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Title**, then press the **OK** button. Title List screen is displayed.
3. Press the ▲▼/**SKIP** (⏮ ⏭) buttons to select the recording title list, then press the **OK** or ▶ button.
   It plays back the title that you are currently recording from the beginning.

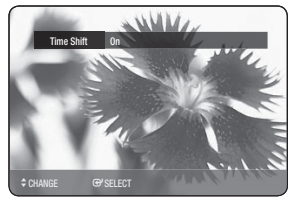
Stopping Playback / Recording

1. Press the **STOP** (■) button once, playback screen disappears and the Title List screen appears.
2. Pressing the **MENU** (MENU) button again, the recording in progress screen appears.
3. Pressing the **STOP** (■) button once more will stop the recording.

- No sound is heard during search mode.
- DVD disc or HDD playback is available during HDD recording. However, JPEG, MP3, and DivX files in the disc cannot be played back.
- HDD playback is available during DVD recording. However, JPEG and MP3 files in the HDD cannot be played back.

TIME SHIFT FUNCTION AS A LIVE SIGNAL

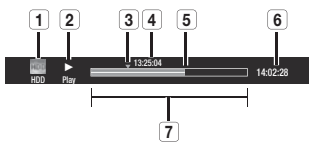
This function replays recordings as a live signal.
If you are interrupted while watching a TV programme, simply press the **TIME SHIFT** button, and the HDD & DVD RECORDER immediately starts recording the programme.



Using the Time Shift function

1. Press the **TIME SHIFT** button on the remote control.
   The Time Shift menu is displayed.
2. Press the ▲▼ button to select **On**, then press the **OK** button.
3. While watching the currently broadcasting programme, press the **PAUSE** (⏸) button.
   The programme on TV is set in pause mode and the Time Shift Bar is displayed.
4. Press the **PLAY** (▶) button to resume watching the programme.

Time Shift Screen Elements



1	Displays the current media.
2	Displays the current status.
3	Watching Point.
4	Current play time.
5	Live Point.
6	Live Time.
7	Time Shift Time Bar

Buttons on the Remote Control used for Time Shift function

1. **PLAY** (▶) button : Playback.
2. **PAUSE** (⏸) button : Pause live TV.
3. **SEARCH** (◀◀ ▶▶) buttons : Fast play (X 2, X 4, X 8, X 16, X 32, X 128)
4. **SKIP** (⏭) button, **STOP** (■) button : Switches to live TV.
5. **SKIP** (⏮) button : Returns to the point where Time Shift begins.

- The Time Shift is available only when HDD mode is selected.
- You can use this function for up to maximum two hours.
- You can only play the contents by using the menu when the Time Shift is set to **On**.
- Press **TIME SHIFT** button to cancel the Time shift function.

MAKING A TIMER RECORDING

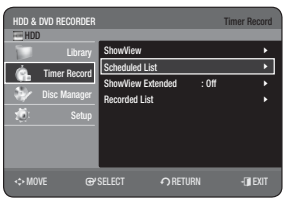
HDD DVD-RAM DVD-RW DVD-R

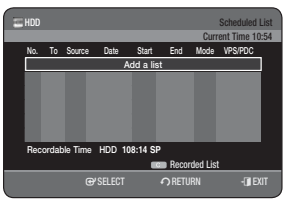
1. Check if the antenna cable is connected.
2. Check the remaining time of the disc.
3. Check if the date and time are correct.

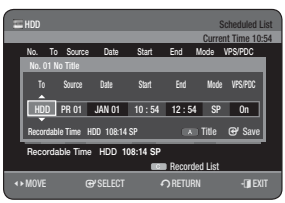
Make sure the Clock (Setup-Clock Set) is set before you proceed with a timer recording. (See page 30)

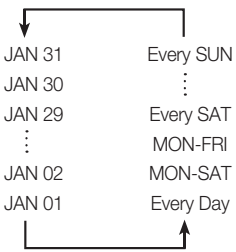
Using the TIMER button

1. With the unit in Stop mode, press the **TIMER** button.
2. Press the ▲▼ buttons to select the **Scheduled List**, then press the **OK** or ► button.
3. Press the **OK** button to select **Add a list**.
4. Set timer recording option.
   - Fill the input items using the ▲▼◄► buttons and number buttons.
     ◄ ► : Moves to the previous/next item.
     ▲▼, 0~9 : Sets a value.
   - **To** : Select the media to record HDD or DVD.
   - **Source** : The video input source (AV1, AV2 or AV3), or the broadcasting channel you want to make a timer recording from.
   - **Date** : Timer Recording allows setting the recording time within one month period. Set the recording day. (month/day)









- **Start/End Time :** Start and end time of the timer recording.
- **Mode (Recording Mode) :**
  - FR (Flexible Recording) : Select when you want to set video quality automatically. In FR mode, the most suitable record mode is adjusted automatically, according to remaining time on the disc and length of the timer recording. This function is selected only one mode in XP, SP, LP and EP modes.
  - XP (high quality) : Select when video quality is important.
  - SP (standard quality) : Select to record in standard quality.
  - LP (low quality) : Select when a long recording time is required.
  - EP (extended) : Select when a longer recording time is required.
- **VPS/PDC :** VPS(Video Programme System) or PDC(Programme Delivery Control) function.
  - If you set this function on, you can control the starting and ending time of recording by special signal included in the broadcasting signal. If a TV programme is shortened or starts earlier or later than scheduled, this function synchronizes the starting and ending time of recording with the actual broadcasting time automatically.

- Set up the start-time EXACTLY according to the published TV schedule. Otherwise the timer recording will not operate.
- Do not select PDC or VPS unless you are sure the programme you wish to record is broadcast with PDC or VPS.

• **TITLE :** To label the title name, press the **RED(A)** button.
Title renaming screen appears.
Follow steps 4 and 5 of "Renaming (Labelling) a Title" on pages 73~74.

5. After selecting the set up value for each mode, press the **OK** button to select **Save**.
• ◴ will appear on the front panel. It means that a timer recording is registered.

If the timer settings overlap;
The programmes are recorded in order of priority. After recording of the first programme is complete, the second programme starts being recorded.

To exit without saving the current setting
Press the **EXIT** (⏻) button.

To return to the previous menu
Press the **RETURN** button if you don't want to set a timer recording.

6. Turn the power off to finish the Timer Recording setting.
Timer Recording will not work when the power is on.

- The timer recording time may differ from the set time depending on disc status and overall timer recording status (for example, recording times overlapping, or when the previous recording ends within 2 minutes before the start time of the next recording.)
- You can make up to 12 Timer Recordings.
- If HDD disk has no available recording space, ◴ blinks. It means that HDD disk has no space to record.
- If you have set the Timer Recording using VPS/PDC, the fan can still operate and make a noise when the power is off.

Editing the Scheduled List

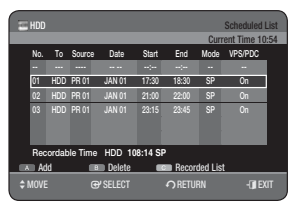
Follow these directions to edit the Scheduled List.

To setup, follow steps 1 to 2 in "Making a Timer Recording" on page 67.

3. Press the ▲▼ buttons to select the number of the Scheduled List you want to edit, then press the **OK** button.
• Edit the items you want to modify. See the "Making a Timer Recording" section for more information on Timer Recording Input items. (See pages 67~68)

4. Press the **OK** button to confirm the edited setting.

5. Press the **EXIT** (⏻) button after finishing the operation. The Scheduled List screen will disappear.


HDD
Scheduled List
Current Time 10:54
No. To Source Date Start End Mode VPS/PDC
-- --- ---- -- -- --:-- --:-- -- --
01 HDD PR 01 JAN 01 17:30 18:30 SP On
02 HDD PR 01 JAN 01 21:00 22:00 SP On
03 HDD PR 01 JAN 01 23:15 23:45 SP On
Recordable Time HDD 108:14 SP
A Add B Delete C Recorded List
MOVE SELECT RETURN EXIT

Adding a Scheduled List

Follow these directions to add an entry from the Scheduled List

To setup, follow steps 1 to 2 in “Making a Timer Recording” on page 67.

3. Press the ▲▼ buttons to select the number of the Scheduled List, then press the **RED(A)** button.
   - Set the items you want to add. See the “Making a Timer Recording” section for more information on Timer Recording Input items.(See pages 67~68)
4. Press the **OK** button to confirm the added setting.
5. Press the **EXIT** (⏎) button after finishing the operation. The Scheduled List screen will disappear.

Deleting a Scheduled List

Follow these directions to delete an entry from the Scheduled List.

To setup, follow steps 1 to 2 in “Making a Timer Recording” on page 67.

3. Press the ▲▼ buttons to select the number of the Scheduled List you want to delete, and then press the **GREEN(B)** button.
   - You will be prompted with the delete confirm message such as “Do you want to delete?”.
4. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   - The selected entry will be deleted from the list.
5. Press the **EXIT** (⏎) button after finishing the operation. The Scheduled List screen will disappear.

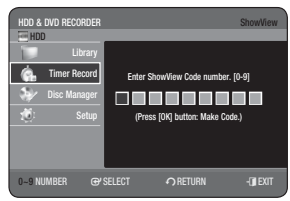
USING THE SHOWVIEW FEATURE

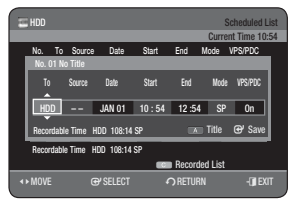
HDD DVD-RAM DVD-RW DVD-R

Before setting your HDD & DVD Recorder to record.

- Switch on both the television and your HDD & DVD RECORDER.
- Check that the date and time are correct.
  Up to twelve programmes can be set to record.

1. With the unit in Stop mode, press the **TIMER** button.
2. Press the ▲▼ buttons to select **ShowView**, then press the **OK** or ► button.
   - A message is displayed to allow you to enter the ShowView code.
3. Press the number buttons to enter the code of the programme that you want to record in your television magazine.
   - If you want to correct the ShowView code that you are entering:
     - Press the ◄ button until the digit to be corrected is cleared.
     - Enter the correct digit.
4. Press the **OK** button.
   - The information concerning the programme is displayed.
   - When using the ShowView function for the first time with stored stations, the programme number flashes. This one time, you must enter the PR number manually by pressing the ▲▼ buttons.
5. Press the **RED(A)** button if you do not want to use the default title name.
   The rename screen is displayed.
   Follow steps 4 and 5 of "**Renaming (Labelling) a Title**" on pages 73~74.
6. If the programme and times are correct, press the **OK** button.
7. Turn the power off by pressing the **STANDBY/ON** button to activate the timer recording setting.
   - Refer to pages 69 and 71 if you want to
     - Check whether the timer Recording has set correctly or not.
     - Cancel a preset recording.



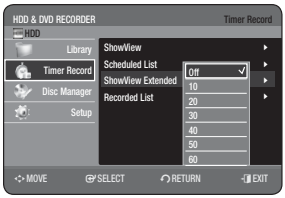


- The numbers next to each TV programme listing in the magazines or newspapers are ShowView code numbers, which allow you to programme your HDD & DVD RECORDER. instantly with the remote control. Enter the ShowView code for the programme you wish to record.
- ShowView is a trademark of Gemstar Development Corporation. The ShowView system is manufactured under licence from Gemstar Development Corporation.

SHOWVIEW EXTENDED

To prevent delays or overruns, the HDD & DVD Recorder has a function called ShowView Extended allowing you to extend the recording time by up to 60 minutes.

• Only use if PDC is not available or set to OFF.



1. With the unit in Stop mode, press the **TIMER** button.
2. Press the ▲▼ buttons to select **ShowView Extended**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select the ShowView Extended time, then the press **OK** or ► button.
4. Press the **EXIT** (↩) button to exit the menu.

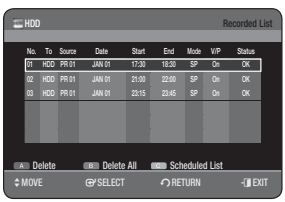
GO TO RECORDED LIST

HDD DVD-RAM DVD-RW DVD-R

You can view a list of the programmes that have been recorded.

Using the TIMER button

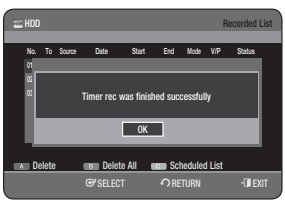
1. With the unit in Stop mode, press the **TIMER** button.
2. Press the ▲▼ buttons to select **Recorded List**, then press the **OK** or ► button.
3. Press the **EXIT** (↩) button after finishing the operation. The Recorded List screen will disappear.


HDD
Recorded List
No. To Source Date Start End Mode V/P Status
01 HDD PR 01 JAN 01 17:30 18:30 SP On OK
02 HDD PR 01 JAN 01 21:00 22:00 SP On OK
03 HDD PR 01 JAN 01 23:15 23:45 SP On OK
A Delete
B Delete All
C Scheduled List
MOVE
SELECT
RETURN
EXIT

Information about Recorded List

Informs whether the selected Recorded List performed a Timer Recording successfully.

3-1. Press the ▲▼ buttons to select the number of the **Recorded List**, then press the **OK** button.

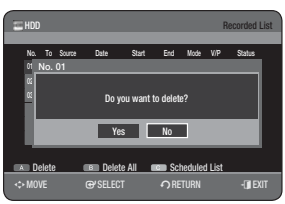


Delete Recorded List

Deletes a Recorded List individually.

3-1. Press the ▲▼ buttons to select the number of the **Recorded List** you want to delete, and then press the **RED(A)** button.

4. Press the ◄► buttons to select **Yes**, then press the **OK** button.

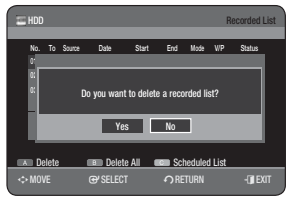


Clear Recorded List

Clears all Recorded List at once.

3-1. Press the **GREEN(B)** button.

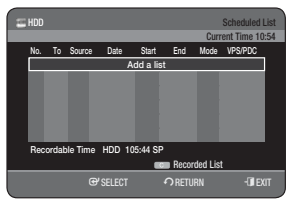
4. Press the ◄► buttons to select **Yes**, then press the **OK** button.



Go to Scheduled List

Switches directly from the Recorded List to the Scheduled List.

3-1. Press the **YELLOW(C)** button.



editing

This section introduces basic functions of editing and explains both edit functions for the recording on a disc and edit functions for the entire disc.
Recording or editing might not be completed if an error, such as a sudden power failure occurs.
Please be aware that material that has been damaged is unable to be reverted back to its original state.

BASIC EDITING (TITLE LIST)

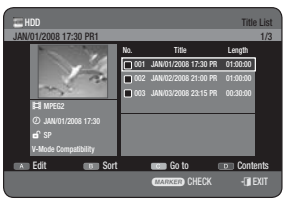
Playing the Title

HDD DVD-RAM DVD-RW DVD-R

Follow these instructions to play back a scene from the Title List.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to play from Title List, then press the **OK** or **PLAY** (▶) button.
   The selected entry (title) will be played back.
3. To stop title play, press the **STOP** (■) button.
   The screen returns to the Title List screen.



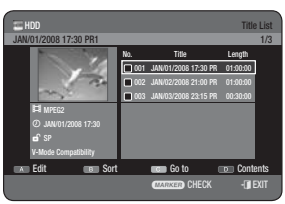
Renaming (Labelling) a Title

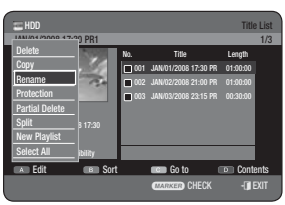
HDD DVD-RAM DVD-RW DVD-R

Follow these instructions to rename a title list entry, i.e., to edit the title of a recorded programme.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to rename from the Title List, then press the **RED(A)** button.
3. Press the ▲▼ buttons to select **Rename**, then press the **OK** or ► button.
   The Rename screen is displayed.
4. Select the desired characters using the ▲▼◄► buttons, press the **OK** button.
   - **Back Space (RED(A) button) :** Deletes and moves the cursor backwards by one position.
   - **Space (GREEN(B) button) :** Enters a blank and moves the cursor one forward (to the right).
   - **Clear (YELLOW(C) button) :** Deletes all the character inputs.
   - **Save (BLUE(D) button) :** Registers the character inputs.





5. Press the **BLUE(D)** button to select **Save**.
   The changed title name is displayed on the title item of the selected entry.

HDD
Rename
Sports(A1)
A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z a b c d e f
g h i j k l m n o p q r s t u v
w x y z 1 2 3 4 5 6 7 8 9 0 - _
+ = . , ! @ # $ % ^ & ( )
Back Space
Space
Clear
Save
MOVE
SELECT
RETURN
EXIT

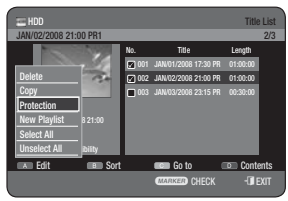
Locking (Protecting) a Title

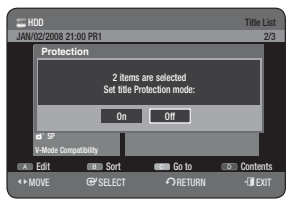
HDD DVD-RAM DVD-RW DVD-R

Follow these instructions to lock an entry to protect it from accidental editing.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to protect from the Title List, then press the **MARKER** button until a checkmark appears. Repeat this step to select an additional title you want to protect.
   - If you don't want to protect a certain one of the checked entries, simply select that entry and press **MARKER** to deselect it until the checkmark disappears.
3. Press the **RED(A)** button to select **Edit**.
   Edit menu is displayed.
4. Press the ▲▼ buttons to select **Protection**, then press the **OK** or ► button.
5. Press the ◄► buttons to select **On**, then press the **OK** button.
   The key icon on the information window for the selected entry changes to the locked status. (🔓→🔒)
6. If you want to cancel the Protection, select **Off** in step 5 and press the **OK** button. The key icon changes to the unlocked status. (🔒→🔓)





■ If you select "Select All" in the Edit menu, all title will be checked.

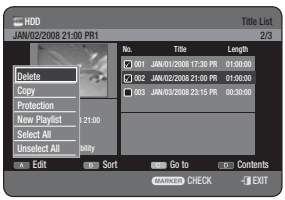
Deleting a Title

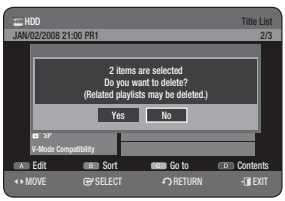
HDD DVD-RAM DVD-RW DVD-R

Follow these instructions to delete an entry from the Title List.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to delete in the Title List, then press the **MARKER** button until a checkmark appears. Repeat this step to select an additional title you want to delete.
   - If you don't want to delete a certain one of the checked entries, simply select that entry and press **MARKER** to deselect it until the checkmark disappears.
3. Press the **RED(A)** button to select **Edit**.
   Edit menu is displayed.
4. Press the ▲▼ buttons to select **Delete**, then press the **OK** or ► button.
   - The message may be different depending on the type of disc.
     You will be prompted with the confirmation message.
     HDD, DVD-RAM(VR mode), DVD-RW(VR mode): If a Playlist is present, the message "Do you want to delete? (Related playlists may be deleted.)" is displayed.
     DVD-RW(V mode)/-R: If a Playlist is not present, the message "Do you want to delete?" is displayed.
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.





- You cannot delete a protected entry. If you want to delete a protected entry, select "Off" in the Title Protection menu. (See page 74)
- When the Disc Protection has been set to Protected, you cannot delete titles. (See page 88)
- Once an entry is deleted from the Title List it cannot be recovered.
- Once DVD-RW/-R is finalised, it cannot be deleted.
- With DVD-R, titles are only deleted from the menu, however, the Title remains physically on the disc.
- If you select "Select All" in the Edit menu, all title will be checked.

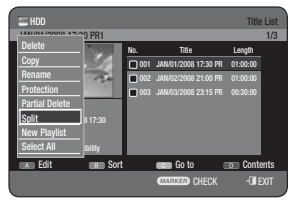
Splitting a Section of a Title (Split)

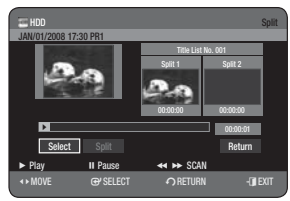
HDD

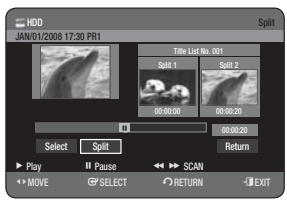
Follow these instructions to split a section of a Title List entry into two titles.

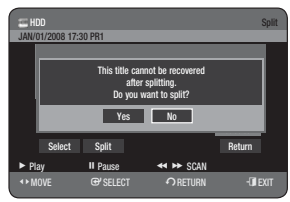
Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to Split from the Title List, then press the **RED(A)** button.
   The Edit menu is displayed.
3. Press the ▲▼ buttons to select **Split**, then press the **OK** or ► button.
4. Using the playback-related buttons (**PLAY** (▶), **SEARCH** (◀◀ ▶▶)), move to a point for splitting and press the **OK** button.
   If it is not the point where you want to split, press the **RETURN** button to cancel the selection. Using the playback-related buttons, move to a point to split and press the **OK** button.
5. Press the **OK** button to select **Split**.
6. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   The split title is divided into two, and the following titles will be shifted down by one.









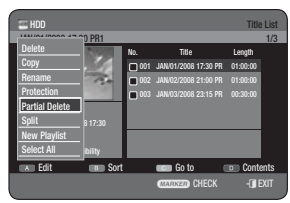
Deleting a Section of a Title (Partial Delete)

HDD DVD-RAM DVD-RW
(VR mode)

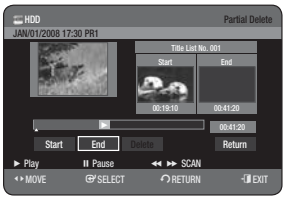
Follow these instructions to delete a section of a Title List entry.

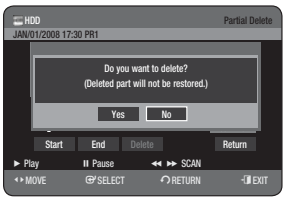
Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to edit from the Title List, then press the **RED(A)** button.
   The Edit menu is displayed.
3. Press the ▲▼ buttons to select **Partial Delete**, then press the **OK** or ► button.



4. Press the **OK** button at the starting point.
   The image and starting point time is displayed in the section deletion starting point window.
   - Select the start and end points of the section you want to delete using the playback related buttons.
   - Playback related buttons : (**PLAY** (▶), **PAUSE** (❚❚), **SEARCH** (◀◀ ▶▶)).
5. Press the **OK** button at the end point.
   The image and end point time is displayed in the Section deletion ending point window.
6. Press the ◀▶ buttons to select **Delete**, then Press the **OK** button.
7. Press the ◀▶ buttons to select **Yes**, then press the **OK** button.
   The selected section has been deleted.
8. Press the ◀▶ buttons to select **Return**, then press the **OK** button to finish the operation.





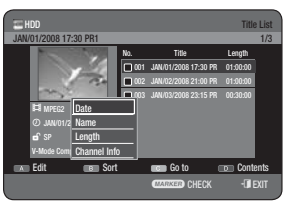
- The length of the section to be deleted must be at least 5 seconds long.
- End point cannot be marked earlier than start point
- The section cannot be deleted when it includes a still picture.
- Press the **EXIT** (⏻) button after the operation has finished.
  The Title List screen will disappear.

USING THE SORT FUNCTION (TITLE LIST)

HDD DVD-RAM DVD-RW DVD-R

When you need to change the Sort order of Title List.

1. While the list menu is displayed, press the **GREEN(B)** button to select **Sort**.
2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ▶ button.
   - **Date** : In order of when the titles were recorded
   - **Name** : In alphabetical order
   - **Length** : In order of recorded title length.
   - **Channel Info** : In order of Channel information.



- You can sort by Date, Name, Length, Channel info. Sorted list will be resorted in copied order upon reentering Title List.

NAVIGATION MENU

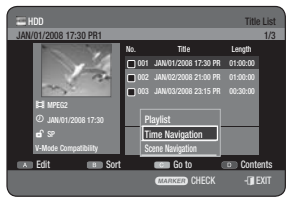
Time Navigation

HDD DVD-RAM DVD-RW
(VR mode)

Using this function, you can search scene minute-by-minute from the recorded title list.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to play from Title List, then press the **YELLOW(C)** button.
3. Press the ▲▼ buttons to select **Time Navigation**, then press the **OK** or ► button.
4. Press the ◄► buttons to skip one minute at a time and search the desired scene, then press the **OK** or **PLAY** (▶) button.



- Cursor does not move if the selected recorded title is shorter than 1 minute.
- The Navigation function may not work on a disc that has not been recorded by this device.
- An edited title may not display the exact search time.

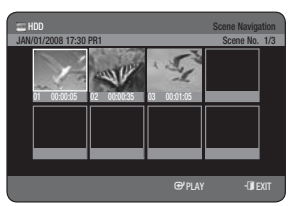
Scene Navigation

HDD DVD-RAM DVD-RW
(VR mode)

If there is a title composed of markers (See page 58), you can search the desired scene using the Scene Navigation.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the ▲▼ buttons to select an entry you want to play from Title List, then press the **YELLOW(C)** button.
3. Press the ▲▼ buttons to select **Scene Navigation,** then press the **OK** or ► button.
4. Press the ▲▼◄► buttons to select desired scene, then press the **OK** or **PLAY** (▶) button.



- Scene Navigation will not operate if a selected title does not have Markers.

SELECT CONTENTS

HDD DVD-RAM DVD-RW DVD-R

1. Press the **BLUE(D)** button to select **Contents**.
2. Press the ▲▼ buttons to select the contents you want to move, then Press the **OK** or ► button.

■ This function is possible only when the disc contains the selected contents.

ADVANCED EDITING (PLAYLIST)

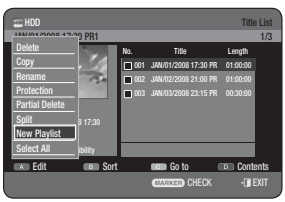
Creating a Playlist

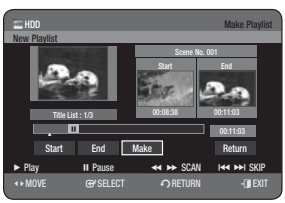
HDD DVD-RAM DVD-RW
(VR mode)

Follow these instructions to create a new playlist entry from a recorded title.

Using the TITLE LIST button

1. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
2. Press the **RED(A)** button.
   The Edit menu is displayed.
3. Press the ▲▼ buttons to select **New Playlist**, then press the **OK** or ► button.
   The Make Playlist screen is displayed.
4. Press the **OK** button at the start point.
   - The image and time at the start point is displayed on the **Start** window.
   - The yellow-coloured selection bar moves to the **End** item.
   - Select the starting point of the section from which you want to create a new scene using the playback related buttons (**PLAY** (▶), **SEARCH** (◀◀▶▶), **SKIP** (⏮⏭)).
5. Press the **OK** button at the end point.
   - The image and end point time is displayed in the **End** window.
   - The yellow-coloured selection bar moves to the Make item.
6. Press the ◄► buttons to select **Make**, then press the **OK** button.
   - To make a scene for the playlist.
     A new Make scene screen is displayed. Repeat steps 4~6 to make a new scene for the playlist.
     A new scene will be added to the current playlist.
     You can check and see all the scenes on the Edit playlist screen. (See page 81)
   - To make a new playlist.
     Repeat steps 1~6 if you want to make a new playlist.
7. Press the ◄► buttons to select **Return**, then press the **OK** button to finish the operation.





■ You can create up to 99 playlist entries.

■ Depending on the kind of disc, the displayed screen may have a slight difference.

Playing Entries in the Playlist

HDD DVD-RAM DVD-RW
(VR mode)

Follow these instructions to play the playlist entries.

Using the PLAY LIST button

1. With the unit in Stop mode/Playback mode, press the **PLAY LIST** button.
2. Press the ▲▼ buttons to select the playlist you want to play, then press the **OK** or **PLAY** (▶) button.
3. Press the **STOP** (■) button to stop playing.
   The screen returns to the Playlist screen.

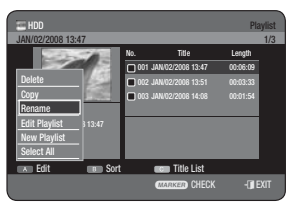
Renaming a Playlist Entry

HDD DVD-RAM DVD-RW
(VR mode)

Follow these instructions to rename a playlist entry, i.e. to edit the title of a playlist entry.

Using the PLAY LIST button

1. With the unit in Stop mode/Playback mode, press the **PLAY LIST** button.
2. Press the ▲▼ buttons to select the title you want to Rename from the Playlist, then press the **RED(A)** button.
   The Edit menu is displayed.
3. Press the ▲▼ buttons to select **Rename**, then press the **OK** or ► button.
   The Rename screen is displayed.
4. Select the desired characters using the ▲▼◄► buttons, then press the **OK** button.
   - **Back Space (RED(A) button) :** Deletes and moves the cursor backwards by one position.
   - **Space (GREEN(B) button) :** Enters a blank and moves the cursor one forward (to the right).
   - **Clear (YELLOW(C) button) :** Deletes all the character inputs.
   - **Save (BLUE(D) button) :** Registers the character inputs.
5. Press the **BLUE(D)** button to select **Save**.
   The changed title is displayed in the title field of the selected playlist entry.



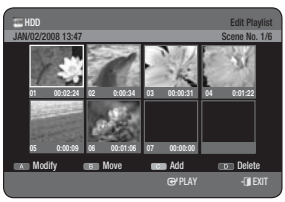
Editing a Scene for the Playlist

HDD DVD-RAM DVD-RW
(VR mode)

Follow these instructions to edit scenes for a playlist.

Using the PLAY LIST button

1. With the unit in Stop mode/Playback mode, press the **PLAY LIST** button.
2. Press the ▲▼ buttons to select the title you want to edit from the Playlist, then press the **RED(A)** button.
   The Edit menu is displayed.
3. Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.
   The Edit Playlist screen is displayed.



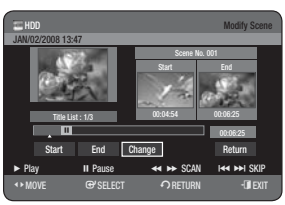
Playing a Selected Scene

4. Press the ▲▼◄► buttons to select the scene you want to play, then press the **OK** or **PLAY** (▶) button.
   The selected scene is played.
   - To stop scene play, press the **STOP** (■) button.

Modifying a Scene (Replacing a Scene)

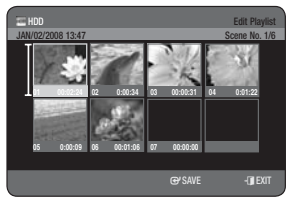
To setup, follow steps 1 to 3.

4-1. Press the ▲▼◄► buttons to select the scene you want to Modify, then press the **RED(A)** button.
   The Modify Scene screen is displayed.
5. Press the **OK** button at the start point of the scene.
   - The image and starting point time is displayed on the **Start** window.
   - Select the starting or ending point of the section you want to modify using the playback related buttons (**PLAY** (▶), **SEARCH** (◀◀, ▶▶), **SKIP** (|◀◀, ▶▶|)).
6. Press the **OK** button at the end point of the scene.
   - The image and ending point time is displayed in the **End** window.
7. Press the ◄► buttons to select **Change**, then press the **OK** button.
   - The scene you want to modify is changed with the selected section.



Moving a Scene (Changing the Position of a Scene)

To setup, follow steps 1 to 3 on page 81.



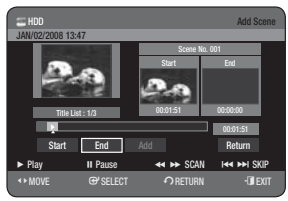
4-1. Press the ▲▼◄► buttons to select the scene you want to move (change the position), then press the **GREEN(B)** button.
- A yellow selection window is displayed on the scene to be moved.

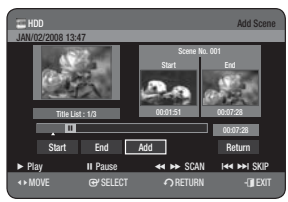
5. Press the ▲▼◄► buttons to select the position to which you want to move the selected scene, then select the **OK** button.

- You cannot move the selected scene to the position of the next scene, because the selected scene should be inserted before that position, which requires no action.
- Depending on the kind of disc, the displayed screen may have a slight difference.

Adding a Scene

To setup, follow steps 1 to 3 on page 81.





4-1. Press the ▲▼◄► buttons to select the scene that will have a new scene inserted before it, then press the **YELLOW(C)** button. The Add Scene screen is displayed.

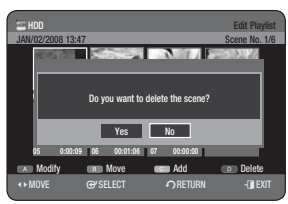
5. Press the **OK** button at the starting point of the scene.
- The image and starting point time is displayed on the **Start** window.
- Select the starting or ending point of the section you want to modify using the playback related buttons (**PLAY** (▶), **SEARCH** (◀◀ ▶▶), **SKIP** (|◀◀ ▶▶|)).

6. Press the **OK** button at the end point of the scene.
- The image and end point time are displayed in the **End** window.
- To cancel, press the ◄► buttons to select **Return**, then press the **OK** button.

7. Press the ◄► buttons to select **Add**, then press the **OK** button.
- The section you want to add is inserted prior to the scene selected in step 4-1 of Adding a Scene.

Deleting a Scene

To setup, follow steps 1 to 3 on page 81.



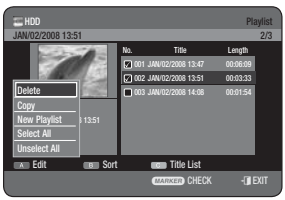
4-1. Press the ▲▼◄► buttons to select the scene you want to delete, then press the **BLUE(D)** button.
- The message “Do you want to delete the scene?” is displayed.

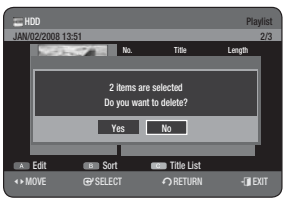
5. Press the ◄► buttons to select **Yes**, then press the **OK** to delete the selected scene.

Deleting a Playlist Entry from the Playlist

Using the PLAY LIST button

1. With the unit in Stop mode/Playback mode, press the **PLAY LIST** button.
2. Press the ▲▼ buttons to select an entry you want to delete in the **Playlist**, then press the **MARKER** button until a checkmark appears. Repeat this step to select an additional title you want to delete.
   - If you don't want to delete a certain one of the checked entries, simply select that entry and press the **MARKER** button to deselect it until a checkmark disappears.
3. Press the **RED(A)** button to select **Edit**.
   Edit menu is displayed.
4. Press the ▲▼ buttons to select **Delete**, then press the **OK** or ► button.
   - You will be prompted with the delete confirmation message "Do you want to delete?".
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   You will be automatically returned to the Playlist screen after the delete operation has finished.



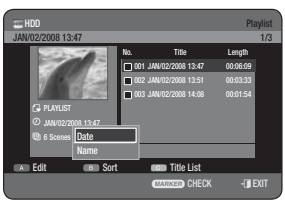


■ If you select "Select All" in the Edit menu, all title will be checked.

Using the Sort (Playlist)

When you need to change the Sort order of Playlist, you can change it simply.

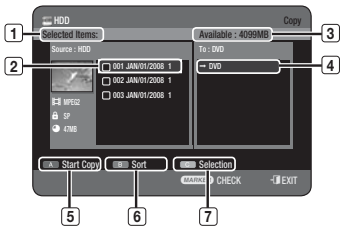
1. While the list menu is displayed, press the **GREEN(B)** button to select **Sort**.
2. Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.
   - **Date** : In order of when the playlists were created
   - **Name** : In alphabetical order



■ You can sort by Date, Name. Sorted list will be resorted in copied order upon reentering Playlist.

COPYING FROM HDD TO DVD OR VICE-VERSA

About the Copy Screen



1	Total size and number of selected titles for copying
2	Title to be copied
3	This shows available disc space
4	The location where the copied files are stored
5	Copy start button
6	Sort button (Date, Name, Length, Channel Info)
7	Selection button - **Select All** : All entries in the current folder will be checked. - **Unselect All** : All checked entries will be unchecked.

Contents Copy Specifications

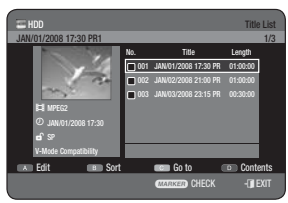
Contents	HDD → DVD	DVD → HDD
Recorded Video Title	Supported	Supported
Copy Protected Title	Not supported	Not supported
Copy Once Title	Move (Deletes the Title in the HDD after copying)	Not supported

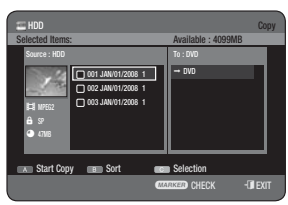
The Copy is possible only with CPRM-Compatible disc.

Once “Copy Once programme” has been recorded on the DVD disc, this title cannot be copied to HDD anymore.

But “Copy Once programme” has been recorded on the HDD, this title can be copied to DVD-RW(VR mode) or DVD-RAM.

Using the TITLE LIST button



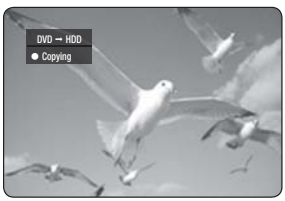


1. Press the **OPEN/CLOSE** button and place a recordable disc on the disc tray.
2. Press the **OPEN/CLOSE** button to close the disc tray. Wait until **LOAD** disappears from the front panel display. Check that the disc has enough available space for the recording.
3. Select a desired mode by pressing the **HDD** or **DVD** button on the remote control.
   You can also select a desired mode by pressing the **HDD/DVD** button on the front panel.
4. With the unit in Stop mode/Playback mode, press the **TITLE LIST** button.
5. Press the **COPY** button. Copy screen is displayed.
   - During Playback, you can also copy the title by pressing the **COPY** button.
6. Press the ▲▼ buttons to select the title you want to copy, then press the **MARKER** button until a checkmark appears.
   Repeat this step to select an additional title you want to copy.
   - If you don’t want to copy a certain one of the checked entries, simply select that entry and press **MARKER** button to deselect it until the checkmark disappears.

7. Press the **RED(A)** button to select **Start Copy**.
   - The title to be copied is not displayed on the screen, and copying begins while the currently broadcasting programme is displayed on the screen.
   - Press the **INFO** button to view the copy processing bar. If you press **INFO** button again, copy processing bar will disappear.
   - To cancel the copying in progress, press the **RED(A)** button.
8. After a successful copy, "The title is successfully copied" message is displayed.

DVD-Video Copy

1. Press the **OPEN/CLOSE** button and place a DVD-Video disc on the disc tray.
2. Press the **OPEN/CLOSE** button to close the disc tray.
3. During the playback, press the **COPY** button. Copy will be started.



- The Copy function will be disabled in the following cases :
  - If you try to copy in the section of a menu.
  - NTSC disc or copy-protected disc
  - Titles that are different in the broadcasting system.
  - The audio title that is copied to the HDD will be recorded in the 2ch AC3 format.
  - For the audio output in DTS mode, the audio source will not be copied.

COPYING MP3, JPEG OR DIVX

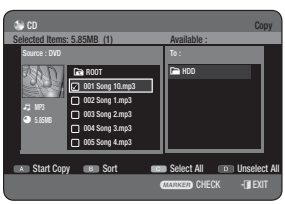
Contents Copy Specifications

Contents	HDD → DVD	DVD → HDD
MP3	Supported	Supported
JPEG(photo)	Supported	Supported
DivX	Supported	Supported
CD-DA	Not supported	Supported

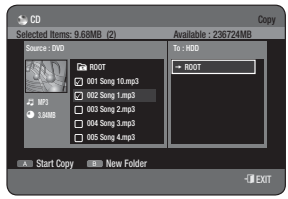
- Disc(CD-R/ CD-DA/ CD-RW/ DVD-RAM/ DVD-R(Finalise)/ DVD-RW(Finalise)) → HDD
- HDD → DVD-R, DVD-RW(V)
- If the disc is finalised through Disc Manager, it can be compatible with PC as a disc with a UDF file system.

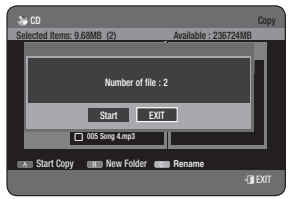
File Copy

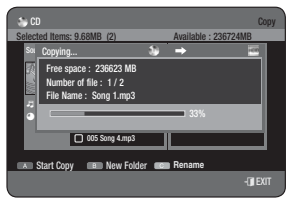
1. Insert a JPEG disc, MP3 disc or DivX disc into the disc tray.
2. Press the **OPEN/CLOSE** button to close the disc tray. Wait until **LOAD** disappears from the front panel display. Check that the disc has enough available space for the recording.
3. Press the ▲▼ buttons to select **Library**, then press the **OK** or ► button.
4. Press the ▲▼ buttons to select **Music**, **Photo** or **DivX**, then press the **OK** or ► button.
5. Press the **COPY** button. Copy screen is displayed.



6. Press the ▲▼ buttons to select the MP3, Photo or DivX file you want to copy, then press the **MARKER** button until a checkmark appears.
   - If you don't want to copy a certain one of the checked entries, simply select that entry and press the **MARKER** button to deselect it until the checkmark disappears.
7. Press the ►▲▼ buttons to select the target media,then press the **OK** button.
   - You can create a new folder by pressing the **GREEN(B)** button.
8. Press the **RED(A)** button to select **Start Copy**.
   The message "Number of file : x" is displayed.
9. Press the ◄► buttons to select **Start**, then press the **OK** button.
   File copy begins.
   - To cancel the copying in progress, press the **EXIT** (↩) button.

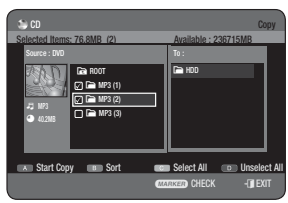


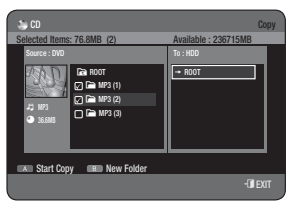


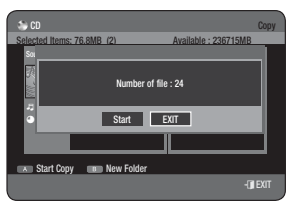


Folder Copy

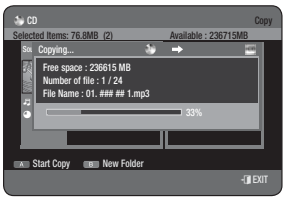
1. Insert a Disc (JPEG, MP3 or DivX) into the tray.
2. Press the ▲▼ buttons to select **Library**, then press the **OK** or ► button.
3. Press the ▲▼ buttons to select **Music**, **Photo** or **DivX** then press the **OK** or ► button.
   MP3, JPEG or DivX folder is displayed.
4. Press the **COPY** button. Copy screen is displayed.
5. Press the ▲▼ buttons to select the folder you want to copy, then press **MARKER** button until a checkmark appears.
   - If you don't want to copy a certain one of the checked folders, simply select that entry and press **MARKER** button to deselect it until the checkmark disappears.
6. Press the ►▲▼ buttons to select the target media,then press the **OK** button.
   - You can create a new folder by pressing the **GREEN(B)** button.
7. Press the **RED(A)** button to select **Start Copy**.
   The message "Number of file : x" is displayed.
8. Press the ◄► buttons to select **Start**, then press the **OK** button.
   Folder copy begins.
   Subfolders and files in the selected folder are copied.
   - To cancel the copying in progress, press the **EXIT** (↩) button.







- Pressing the **EXIT** (⏻) button during folder copying will cancel the folder copying after the current file is copied.
- You can copy up to 500 files or 500 sub folders to one folder. [MP3, JPEG, DivX]
- If you want to copy a file, you should create a new folder before starting a copy.
  You cannot copy to top-level(ROOT) folder directly without creating a new folder.
- If the top-level (ROOT) folder has had already 500 folders, you should delete one or more items before you can create a new folder.
- File size on a disc and the copied file in the HDD may be slightly different due to the file system.
- If you check some entries in the current folder and move to open a different folder, those entries are automatically unchecked and excluded from the selection list.

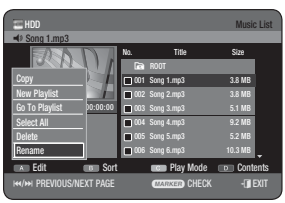


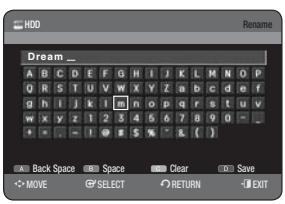
CHANGING THE NAME OF MUSIC/PHOTO/DIVX FILE

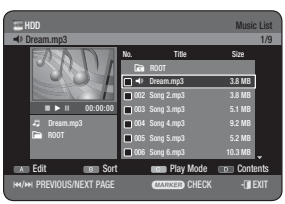
HDD

You can rename a Music, Photo or DivX file copied to HDD.

1. Press the ▲▼ buttons to select the entry you want to rename, then press the **RED(A)** button.
2. Press the ▲▼ buttons to select **Rename**, then press the **OK** or ► button.
   Rename Screen is displayed.
3. Select the desired characters using the ▲▼◄► buttons, then press the **OK** button.
   - **Back Space (RED(A) button):** Deletes and moves the cursor backwards by one position.
   - **Space (GREEN(B) button):** Enters a blank and moves the cursor one forward (to the right).
   - **Clear (YELLOW(C) button):** Deletes all the character inputs.
   - **Save (BLUE(D) button):** Registers the character inputs.
4. Press the **BLUE(D)** button to select **Save**.
   The changed file name is displayed on the selected entry.




HDD
Rename
Dream _
A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z a b c d e f
g h i j k l m n o p q r s t u v
w x y z 1 2 3 4 5 6 7 8 9 0 _ .
A Back Space
B Space
Clear
D Save
MOVE
SELECT
RETURN
EXIT



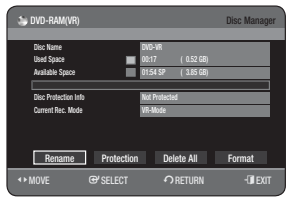
DISC MANAGER

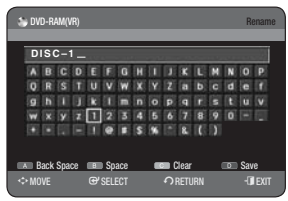
Editing the Disc Name

DVD-RAM DVD-RW DVD-R

Follow these instructions to give a name to a disc.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ◄► buttons to select **Rename**, then press the **OK** button.
   The Rename screen is displayed.
4. Select the desired characters using the ▲▼◄► buttons, then press the **OK** button.
5. Press the **BLUE(D)** button to select **Save**.
   A disc name is given to the disc.





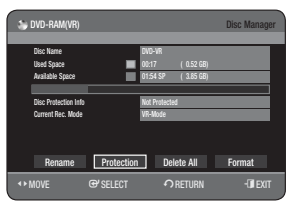
- You may need to clear Disc Protection beginning editing.
- Depending on the kind of disc, the displayed screen may be different.

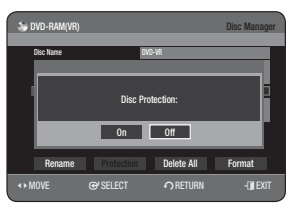
Disc Protection

DVD-RAM DVD-RW DVD-R

Disc Protection allows you to protect your discs from being formatted or deleted due to unintended operations.

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ◄► buttons to select **Protection**, then press the **OK** button.
4. Press the ◄► buttons to select **On**, then press the **OK** button.

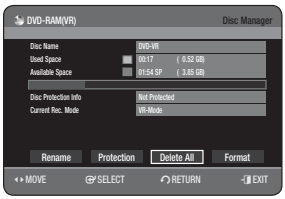




Delete All Title Lists

DVD-RAM DVD-RW DVD-R

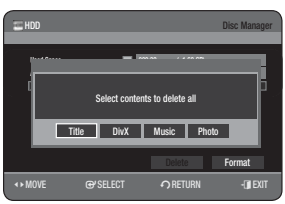
1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ▲▼◄► buttons to select **Delete All**, then press the **OK** button.
   - You will be prompted with the confirmation message “Do you want to delete all title lists?”.
   - When Protected Entry exists: The Delete All Title List function will not operate. If there is a title containing a still picture, however, that function will not operate.
     If you want to delete a protected entry, disable Protect for it on the Lock item.
   - When protected a DVD-RAM/-RW is used, data cannot be deleted from a disc.
   - If you select **Yes**, you will be prompted with the confirmation message “All playlists will also be deleted. Do you want to continue?”.
4. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   All title lists are deleted.



Delete All Title Lists/DivX Lists /Music Lists/Photo Lists

HDD

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ◄► buttons to select **Delete**, then press the **OK** button.
   - When Protected Entry exists: The Delete All Title List function will not operate. If there is a title containing a still picture, however, that function will not operate. If you want to delete a protected entry, disable Protect for it on the Lock item.
4. Press the ◄► buttons to select the **Title**, **DivX**, **Music** or **Photo**, then press the **OK** button.
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   All title lists, DivX lists, music lists or photo lists are deleted.

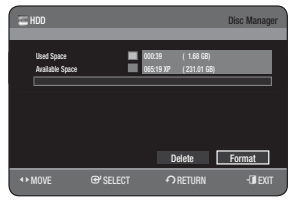


<Title>

Formatting a Disc

HDD DVD-RAM DVD-RW

Use these instructions to format a disc.
The disc protect should also be cleared.



1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ◄► buttons to select **Format**, then press the **OK** button.

   HDD/ DVD-RAM
   - You will be prompted with the confirmation message "Current media: ✶✶✶ Do you want to format?".
   - If you select **Yes**, you will be prompted with the confirmation message "All data will be deleted. Do you want to continue?".

   DVD-RW
   - You will be prompted with the confirmation message "Choose the recording format for DVD-RW."
   - If you select the desired format type, you will be prompted with the confirmation message "All data will be deleted. Do you want to continue?".
4. Press the ◄► buttons to select **Yes**, then press the **OK** button. The disc is formatted.

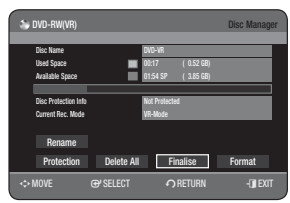
DVD-VR and DVD-V are defined according to their recording format.

	DVD-VR	DVD-V
DISC	DVD-RAM/-RW	DVD-RW/DVD-R

Finalising a Disc

DVD-RW DVD-R

After you record titles onto a DVD-RW/-R disc with your HDD & DVD RECORDER, it needs to be finalised before it can be played back on external devices.



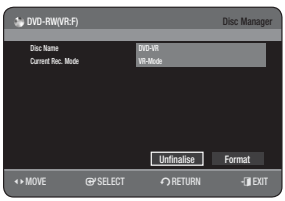
1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ▲▼◄► buttons to select **Finalise**, then press the **OK** button.
   You will be prompted with the message "Do you want to finalise disc?".
4. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   You will be prompted again with the message "Disc will be finalised. Do you want to continue?".
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   The disc is finalised.

- Once a disc is finalised, you cannot delete entries from the record list.
- After being finalised, the DVD-R/-RW(video mode) operates in the same manner as a DVD-Video.
- Depending on the disc type, the displayed screen may be different.
- Finalising time may be different depending on the amount of data recorded on the disc.
- Data on the disc will be damaged if the recorder is powered off during finalisation process.
- You can finalise the disc automatically using EZ Record. (See page 39)

Unfinalising a Disc (V/VR mode)

DVD-RW

1. With the unit in Stop mode, press the **MENU** button.
2. Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.
3. Press the ◄► buttons to select **Unfinalise**, then press the **OK** button.
   You will be prompted with the message “Do you want to unfinalise disc?”.
4. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   You will be prompted again with the message “Disc will be unfinalised. Do you want to continue?”.
5. Press the ◄► buttons to select **Yes**, then press the **OK** button.
   The disc is unfinalised.



- A DVD-RW can be finalised or unfinalised in Video mode.

	Finalise	Unfinalise
Mark	DVD-Video(RW)	DVD-RW(V)
Operation	Same as DVD-Video	Additional recording, protection and deletion are possible.

- A DVD-RW can be finalised or unfinalised in VR mode.

	Finalise	Unfinalise
Mark	DVD-RW(VR:F)	DVD-RW(VR)
Operation	Additional recording, deletion, editing, and protection are impossible.	Additional recording, deletion, editing, and protection are possible.

TROUBLESHOOTING

If your product malfunctions, go through the checkpoints below before contacting a Samsung authorised service centre.

PROBLEM	EXPLANATION/SOLUTION
The input is displayed for a while when the power is turned on.	The HDD & DVD RECORDER requires some time to initialize and the input will be displayed for approx. 10 seconds after it is turned on.
Cannot record TV programmes.	• Check whether the power cord is securely plugged into the power outlet. • Did you set the HDD & DVD RECORDER channel settings correctly? • Check the free space on your HDD/DVD-RAM/-RW/-R discs.
I pressed the REC button but there is no response.	Check available disc type. (See page 59) If a programme is copy protected, it cannot be recorded.
Cannot play the disc.	• Check whether the disc is inserted correctly with the label facing up. • Check the regional code of the DVD disc. • This HDD & DVD RECORDER cannot play some types of discs. (See pages 7, 40)
⊘ icon appears on the screen.	You cannot use this operation or function due to one of the following reasons: (1) Your DVD disc restricts it. (2) Your DVD disc does not support this feature (for example: angles) (3) The feature is not available at the moment. (4) You've requested a title, chapter, or scan time that is out of range.
Play mode settings are different from the settings configured in the Settings menu.	The disc does not support all selected functions. In this case, some settings configured in the settings menu may not work properly.
Cannot change the aspect ratio.	The aspect ratio is fixed for DVD discs. (See page 35)
The angle operation does not work while playing a DVD disc.	The angle operation is available only when the disc contains images captured from different angles.
The selected audio and/or subtitle language is not played.	Audio and subtitle languages are disc-specific. Only the sound and subtitle languages contained on the DVD disc are available and displayed in the disc menu.
Cannot copy title or file to the other mode.	• DVD discs encoded with copy protection can not be copied to HDD. • Refer to "Contents Copy Specifications" on page 6 to check if copying is supported. Refer to "V-Mode Compatibility" on page 39 to check if copying is support.
The disc revolves, but no image or bad quality images is displayed	• Be sure that the Video Setting is properly set. (See pages 35~36) • Check whether there is damage to or any foreign material on your disc. • Some low quality discs may not play properly. • If scenes change from dark to bright suddenly, the screen may shake vertically temporarily, but this is not a fault.
No sound.	• Are you watching a programme in slow or skip mode? If you are playing a programme at a speed other than normal speed, sound will not be heard. (Except for forward search (X 2) in disc.) • Check the connections and settings. (See pages 25~26, 34~35) • Check whether the disc is damaged. Clean the disc, if necessary. • Check whether the disc is inserted correctly with the label facing up.

PROBLEM	EXPLANATION/SOLUTION
No audio output.	Check whether you have selected the correct digital output options in the Audio Output Options menu. (See pages 34~35)
Timer lamp flickers	• Check there is enough space in the disc or HDD for recording. • Check whether the current disc is recordable or not. Make sure to check before the start time of recording.
Timer recording does not work properly.	• Re-check the recording time and the end time settings again. • Recording will be cancelled if the power is interrupted due to a power failure or another similar reason while recording.
The remote control doesn't work.	• Point the remote control at the remote control sensor on your HDD & DVD RECORDER. Allow for proper distance. Remove obstacles between your HDD & DVD RECORDER and the remote control. • Check whether the batteries are drained. • Check the TV/DVD selection button setting. • Check whether TV control button is selected or not.
I forgot my password for parental supervision	Press and hold the **PLAY/PAUSE** (▶II) buttons on the front panel for more than 10 seconds with no disc in the unit. All settings including the password will revert to the factory settings. Do not use this unless absolutely necessary.
Is it possible to change a subtitle and an audio signal on a recorded disc?	A recorded disc is played with only the subtitle and the audio signal which were selected during recording
Other problems	• Read the table of contents and then find and read the section describing your problem, follow the instructions given. • Plug your HDD & DVD RECORDER off and on. • If the problem still persists, contact a nearby Samsung service centre.

SPECIFICATIONS

General	Power requirements		AC 220~240 V, 50 Hz
	Power consumption		30 Watts / 2.2 Watts (Power off)
	Weight		3.8 Kg
	Dimensions		430 mm(W) x 300 mm(D) x 55 mm(H)
	Operating temp.		+5 °C to +35 °C
	Other conditions		Keep level when operating. Less than 75% operating humidity
Input	Video		Composite Video : 1.0 V p-p at 75Ω load, sync negative
	Audio		Max.Audio Input Level : 2 Vrms
	Receivable Channels		PAL, SECAM-B/G, D/K, I
	Scart Jack	AV2 (Scart Ext)	Video : Composite, RGB Audio: analogue
Output	Audio		Analogue output jacks x 1
			Coaxial digital audio output
	Video		Composite Video : Video output jack x 1
			Component output x 1 (Y : 1,0Vp-p, P_b : 0,70Vp-p, P_r : 0,70Vp-p at 75Ω load)
	Scart Jack	AV1 (Scart TV)	Video : Composite, RGB Audio: analogue
Recording	Picture Compression format		MPEG-II
	Audio Compression format		Dolby Digital 2ch/256Kbps, MPEG-II
	Recording Quality		XP (about 8,5 Mbps), SP (about 4,5 Mbps), LP (about 2,5 Mbps), EP (about 1,6 Mbps or about 1,2 Mbps)
	Audio Frequency Response		20 Hz~20 kHz
HDD Capacity	DVD-HR770		160 GB

Audio Output

For DVD discs, audio signals recorded at 96 kHz sampling frequency are converted into and output at 48 kHz.

Disc Type	DVD	AUDIO CD (CD-DA)
Analogue Audio Output	48 / 96 kHz	44,1 kHz
Digital Audio Output	48 kHz	44,1 kHz

Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Region	Country	Customer Care Center ☎	Web Site
North America	CANADA	1-800-SAMSUNG(726-7864)	www.samsung.com/ca
	MEXICO	01-800-SAMSUNG(726-7864)	www.samsung.com
	U.S.A	1-800-SAMSUNG(726-7864)	www.samsung.com
Latin America	ARGENTINE	0800-333-3733	www.samsung.com/ar
	BRAZIL	0800-124-421 , 4004-0000	www.samsung.com
	CHILE	800-SAMSUNG(726-7864)	www.samsung.com/cl
	NICARAGUA	00-1800-5077267	
	HONDURAS	800-7919267	
	COSTA RICA	0-800-507-7267	www.samsung.com/latin
	ECUADOR	1-800-10-7267	www.samsung.com/latin
	EL SALVADOR	800-6225	www.samsung.com/latin
	GUATEMALA	1-800-299-0013	www.samsung.com/latin
	JAMAICA	1-800-234-7267	www.samsung.com/latin
	PANAMA	800-7267	www.samsung.com/latin
	PUERTO RICO	1-800-682-3180	www.samsung.com/latin
	REP. DOMINICA	1-800-751-2676	www.samsung.com/latin
	TRINIDAD & TOBAGO	1-800-SAMSUNG(726-7864)	www.samsung.com/latin
	VENEZUELA	0-800-100-5303	www.samsung.com/latin
	COLOMBIA	01-8000112112	www.samsung.com.co
Europe	BELGIUM	0032 (0)2 201 24 18	www.samsung.com/be
	CZECH REPUBLIC	844 000 844 Distributor pro Českou republiku: Samsung Zrt., česka organizační složka Vyskočilova 4, 14000 Praha 4	www.samsung.com/cz
	DENMARK	70 70 19 70	www.samsung.com/dk
	FINLAND	030-6227 515	www.samsung.com/fi
	FRANCE	3260 SAMSUNG (€ 0,15/Min), 08 25 08 65 65 (€ 0,15/Min)	www.samsung.com
	GERMANY	01805 - SAMSUNG(726-7864) (€ 0,14/Min)	www.samsung.com
	HUNGARY	06-80-SAMSUNG(726-7864)	www.samsung.com
	ITALIA	800-SAMSUNG(726-7864)	www.samsung.com
	LUXEMBURG	0035 (0)2 261 03 710	www.samsung.com/be
	NETHERLANDS	0900-SAMSUNG(726-7864) (€ 0,10/Min)	www.samsung.com/nl
	NORWAY	815-56 480	www.samsung.com/no
	POLAND	0 801 801 881 , 022-607-93-33	www.samsung.com/pl
	PORTUGAL	80820-SAMSUNG(726-7864)	www.samsung.com/pt
	SLOVAKIA	0800-SAMSUNG(726-7864)	www.samsung.com/sk
	SPAIN	902 10 11 30	www.samsung.com
	SWEDEN	0771-400 200	www.samsung.com/se
	U.K	0845 SAMSUNG (7267864)	www.samsung.com
	EIRE	0818 717 100	www.samsung.com/ie
	AUSTRIA	0800-SAMSUNG(726-7864)	www.samsung.com/at
	SWITZERLAND	0800-SAMSUNG(726-7864)	www.samsung.com/ch
CIS	RUSSIA	8-800-555-55-55	www.samsung.com
	KAZAHSTAN	8-10-800-500-55-500	www.samsung.kz
	UZBEKISTAN	8-10-800-500-55-500	www.samsung.uz
	KYRGYZSTAN	00-800-500-55-500	
	TADJIKISTAN	8-10-800-500-55-500	
	UKRAINE	8-800-502-0000	www.samsung.com
	LITHUANIA	8-800-77777	www.samsung.lt
	LATVIA	800-7267	www.samsung.com/lv
	ESTONIA	800-7267	www.samsung.ee
Asia Pacific	AUSTRALIA	1300 362 603	www.samsung.com
	NEW ZEALAND	0800SAMSUNG(726-7864)	www.samsung.com/nz
	CHINA	800-810-5858 , 010-6475 1880	www.samsung.com
	HONG KONG	3698-4698	www.samsung.com/hk
	INDIA	3030 8282 , 1800 110011	www.samsung.com
	INDONESIA	0800-112-8888	www.samsung.com
	JAPAN	0120-327-527	www.samsung.com/jp
	MALAYSIA	1800-88-9999	www.samsung.com/my
	PHILIPPINES	1800-10-SAMSUNG(726-7864)	www.samsung.com/ph
	SINGAPORE	1800-SAMSUNG(726-7864)	www.samsung.com
	THAILAND	1800-29-3232 , 02-689-3232	www.samsung.com
	TAIWAN	0800-329-999	www.samsung.com/tw
	VIETNAM	1 800 588 889	www.samsung.com
Middle East & Africa	TURKEY	444 77 11	www.samsung.com
	SOUTH AFRICA	0860-SAMSUNG(726-7864)	www.samsung.com
	U.A.E	800-SAMSUNG (726-7864), 8000-4726	www.samsung.com

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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